PROCEEDINGS

OF

BENGAL SECRETARIAT LIBRARY.

THE SUB-COMMITTEE,

PUBLIC SERVICE COMMISSION

FOREST DEPARTMENT.

PART I.

INDIA.

PART II.

BOMBAY AND MADRAS.

SIMLA:
SUPERINTENDENT GOVERNM
1887.

Members of the Sub-Committee.

BENGAL—

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PUNJAB—

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Major F. Bailey, R.E., *Departmental Member.*

Sir Charles Turner, KT., C.I.E. *President.*

CENTRAL PROVINCES—

No sittings held.

ASSAM—

No sittings held.

BERAR—

No sittings held.

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BENGAL SECRETARIAT LIBRARY.

PROCEEDINGS

OF

THE SUB-COMMITTEE,

PUBLIC SERVICE COMMISSION.

INDIA
Forests.

Section I.—Note by the Sub-Committee.

The systematic preservation of forests was first taken in hand in India by the Government of Bombay, where in 1847 a Conservator of Forests was appointed for the entire Presidency. A similar appointment was made by the Government of Madras in 1856. In 1862 Dr. (now Sir) D. Brandis was engaged to assist in organizing the Forest Department in Northern India, and in 1864 he was created Inspector General of Forests to the Government of India. In 1865 the first Indian Forest Act was enacted to provide for the protection and better management of Government Forests. Dr. Brandis found it difficult to obtain competent officers for the superior grades of the Forest Department in India, and in 1866 he proceeded to England to arrange for the recruitment of Forest officers who were to receive a training in the schools of France and Germany.

The management of Forests is left in the hands of the Local Governments, but the Inspector General corresponds on all Forest matters directly with the Conservators, and he may call for any information, reports, and returns he thinks necessary. In certain matters District Forest officers are subordinate to the Collector.

At the head of the Department is the Inspector General for the Government of India, who receives a salary of ₹1,700 rising to ₹2,000.

The staff of the Department is divided into three branches, exclusive of the Clerical Establishment:—

(1) The Controlling Staff. | (2) The Executive Staff.
(3) The Protective Staff.

The Controlling Staff consists of—

Conservators	Chief Forest Officers of Provinces or parts of Provinces.
Deputy Conservators, Assistant Conservators	Officers in charge of Forest Divisions.
Assistant Conservators, 2nd and 3rd grades	Officers in charge of Forest Sub-Divisions.

This distribution of charges is not, however, strictly adhered to; officers are posted according to their capacity for work or to the existing number in each grade present on duty; and are occasionally posted to charges inferior or superior to those which it was intended to assign to the rank held by them. Thus in some cases Deputy Conservators hold charge of Sub-Divisions and Assistant Conservators charge of Divisions.

The Executive Staff comprises—

Sub-Assistant Conservators, Forest Rangers	Officers in charge of Ranges.

When the number of Assistant Conservators is insufficient, Sub-Assistant Conservators are appointed to the charge of Sub-Divisions.

The Protective Staff consists of—

Foresters, Forest Guards	In charge of Beats.

When Forest Rangers are not available, Foresters are placed in charge of Ranges.

The salaries of the Controlling Staff throughout India are as follow:—

	₹
Conservators, 1st grade	1,500
" 2nd "	1,250
" 3rd "	1,000
Deputy Conservators, 1st grade	900
" " 2nd "	800
" " 3rd "	650
" " 4th "	550
Assistant Conservators, 1st grade	450
" " 2nd "	350
" " 3rd "	250

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The Executive Staff receives the following salaries:—

	R	R
Sub-Assistant Conservators	150	to 250
Rangers	50	„ 150

To the Controlling Staff appointments are made ordinarily by the Secretary of State. The candidates are selected by competitive examination, subject to the following qualifications:— A candidate must be a natural-born British subject, and must be above 17 and under 21 years of age. He must be unmarried; and if he marries before leaving England for India, he forfeits his appointment. He must produce testimonials of good conduct for the two years preceding his application for admission to the examination. He must appear before a Medical Board, and obtain a certificate of physical fitness for employment in the Department. Particular stress is laid upon good vision and hearing, and means are taken to test physical powers of endurance, so as to ensure the selection of persons of active habits and sound constitution.

A fee of £4 is payable for admission to the examination, and formerly, after selection, candidates were sent to the Ecole Forestiere at Nancy, where, after a preliminary course of instruction under a French Forest officer, they were required to attend the regular College courses for a period of two years. But in 1884 it was resolved that in future the selected candidates should receive a larger portion of their training in England, and that they should be required to study at Cooper's Hill for a period of 2 years and 2 months; and that during part of the vacations, and during the last 4 months of the period of tuition, they should visit from time to time forests in Great Britain and the Continent for the purpose of practical instruction in such details of Forest management as could not be studied at the College at Cooper's Hill. The candidates are instructed in pure Mathematics, Applied Mathematics, Geometrical Drawing, Free-hand Drawing, Surveying, Descriptive Engineering, Physics, Chemistry, Biology, Botany, Geology, Forestry, and the French or German language; and to these subjects Entomology has lately been added. The College fees amount to £180 per annum, which must be paid in advance in three instalments. These fees include all charges for tuition, board and lodging, but not medical attendance. Students are required to provide their own class books and drawing instruments; but drawing paper, drawing boards, and surveying instruments are provided by the College. The entire expense of the tours and of the course of practical instruction in the Forests is defrayed by the Secretary of State. A deposit of £5 is required to be made by each student on admission to the College as caution money.

In so far as the recruits obtained from England are insufficient to fill existing vacancies, appointments to the Controlling Staff are made in India. The Forest Code framed for the territories under the administration of the Governor General, but which has not been adopted in its entirety in the Presidencies of Madras and Bombay, provides (section 21, clause 2) that, when no officer appointed in England is available, the Governor General in Council may appoint to the Controlling Staff a Sub-Assistant Conservator of special merit and of not less than 5 years' service in that class. An officer of the Controlling Staff, whether recruited in England or appointed in India, must ordinarily be appointed to the 3rd grade of Assistant Conservators; and if he is employed in territories administered by the Governor General, he is placed on one of the following Provincial lists:—

(i) Bengal.
(ii) Assam.
(iii) North-Western Provinces, Oudh, and Ajmere.
(iv) Punjab and Beluchistan.
(v) Central Provinces, Berar, and Coorg.
(vi) Burma and the Andamans.

Before an Assistant Conservator of the 3rd grade is promoted to the 2nd grade, he must have passed an examination in a principal language of his Province by the lower standard, and must have obtained a certificate from the Conservator that he is competent to hold charge of a Forest Range.

The number of appointments in the 2nd and 3rd grades respectively of Assistant Conservators not being fixed, officers may be promoted substantively from the 3rd to the 2nd grade; but no officiating promotions are made to the 2nd grade. Promotions beyond the last mentioned grade can be made only on the occurrence of vacancies.

Before promotion to the 1st grade of Assistant Conservators an officer must have passed an examination in a principal language of his Province by the higher standard (or in two principal languages by the lower standard), and also an examination in Forest Law and in the Land Revenue system of his Province, and must have obtained a certificate from the Conservator that he is competent to hold charge of a Forest Division.

Promotions up to and including the 4th grade of Deputy Conservators are regulated by priority in passing the prescribed examinations. The position of officers in the 4th grade of Deputy Conservators is regulated by the date of their original appointment to the class of Assistant Conservators. Thereafter promotions are regulated by the practical efficiency officers may show in the discharge of their duties.

Promotions from the 3rd grade of Assistant Conservators up to and including the 2nd grade of Deputy Conservators are made by Local Governments, and in the case of officers on

the Central Provinces, Berar, and Coorg list, by the Chief Commissioner of the Central Provinces, in consultation with the Resident of Hyderabad and the Chief Commissioner of Coorg.

Promotions from the 2nd to the 1st grade of Deputy Conservators and appointments to the grade of Conservator, or to the posts of Inspector General, Assistant Inspector General, Deputy Director of the Forest School, Instructor at the Forest School, and Deputy Superintendent of Forest Surveys, are made by the Government of India; and officers may be selected from any list irrespectively of the Province in which the vacancy occurs.

Appointments of Sub-Assistant Conservators are made by the Local Governments—

(1) By the promotion of Forest Rangers who have obtained a Ranger's certificate at the Dehra Dun Forest School, and who have rendered not less than 5 years' satisfactory service as Forest Rangers.

(2) By the promotion of Forest Rangers who entered the Department before 1st December 1881, and have done specially good service, including 5 years as Forest Rangers.

(3) By the appointment on probation for not less than 2 years, with the previous sanction of the Government of India, of applicants between the ages of 18 and 25, who are deemed by the Conservator likely to make useful Forest officers, subject to the production of the following certificates:—

(1) A certificate of birth or other satisfactory evidence of age.
(2) A certificate signed by a Presidency or Civil Surgeon that the candidate is of good health and constitution, including good eyesight and hearing.
(3) A certificate that the candidate has passed the F.A. Examination at one of the Indian Universities, or such other examination of an equal standard as may be considered sufficient.
(4) A certificate that the candidate has passed the examination in one of the principal languages of the Province by the lower standard.
(5) A certificate that the candidate has passed a prescribed examination in Surveying.

Probationers so appointed are, when it is possible, to be sent to the Dehra Dun Forest School to receive instruction for such a period as may be considered necessary in each instance.

Forest Rangers appointed by Conservators are ordinarily appointed—

(1) By selection from Foresters or others who have obtained the Ranger's certificate at the Forest School at Dehra Dun.

(2) From Foresters or others who have obtained the Forester's certificate at the same School, and who have afterwards rendered not less than 2 years' satisfactory service as Foresters.

But the Local Government may also appoint to this grade subordinates who have earned such promotion by faithful and meritorious service, and Native Non-Commissioned officers of the army who have entered the Forest Department under the orders contained in the Resolution of the Government of India, No. 25F., dated 13th November 1880.

There are no rules prescribed by the Government respecting the qualifications to be possessed by candidates for employment in the Protective Staff; but the appointments of Foresters are made by the Conservators, who, in some instances, prescribe certain conditions respecting age, physique, and educational qualifications.

The appointments of Forest Guards are made by the Divisional officers.

The Assistant Conservators and officers of higher rank appointed by the Secretary of State, or with his special sanction, are granted furlough under the rules contained in Chapter V of the Civil Leave Code, as are also certain other officers whose names appear in Schedule B of the Code. The other officers of the Forest Department are granted furlough under the rules for Uncovenanted officers (Chapter X of the Civil Leave Code).

The pensions of officers appointed to the Department in England by Her Majesty's Secretary of State are governed by sections 67, 96 and 114 of the Civil Pension Code. The other officers of the Department are entitled to pensions in accordance with the rules of the Code relating to Uncovenanted officers.

There are attached to the office of the Inspector General a Superintendent of Forest Surveys and a Superintendent of Working Plans.

The staff of the Forest Department in Bengal consists of 1 Conservator, 9 Deputy Conservators, and 2 Assistant Conservators, all of whom are Europeans not domiciled in India; and 7 Sub-Assistant Conservators, of whom 1 is a European not domiciled in India, 4 are Eurasians, and 2 are Hindus.

There are no Rangers in Bengal receiving salaries of ₹100; but of the officers in this class, 2 are Eurasians, 18 are Hindus, and 1 is a Mahomedan.

The Forest Staff in Assam consists of 1 Conservator, 2 Deputy Conservators, and 5 Assistant Conservators, all of whom are non-domiciled Europeans; and of 3 Sub-Assistant Conservators, of whom one is a domiciled European and 2 are Hindus. There are 10 Rangers, all Hindus; but no one of them enjoys a salary in excess of ₹80.

In the North-Western Provinces there are 3 Conservators. 13 Deputy Conservators, and 8 Assistant Conservators. Of these, 1 Deputy Conservator and 2 Assistant Conservators are domiciled Europeans; the other officers are non-domiciled Europeans. There are 4 Sub-Assistant Conservators, of whom 1 is a domiciled European and 3 are Hindus.

The following officers holding special appointments have their head-quarters in the North-Western Provinces, *viz.*, the Assistant Inspector General of Forests and Superintendent of Working Plans, who is a Eurasian; the Deputy Director of the Forest School, the Instructor at the Forest School, and the Superintendent of Forest Surveys, who are non-domiciled Europeans.

In the Punjab the staff of the Department consists of 1 Conservator, 11 Deputy Conservators, and 6 Assistant Conservators. With the exception of 2 Deputy Conservators who are Europeans domiciled in India, the other Controlling officers are non-domiciled Europeans. Of 4 Sub-Assistant Conservators, 3 are domiciled Europeans and 1 is a Hindu. There is also one probationer for this grade, who is a Mahomedan. Of the 4 Forest Rangers who receive a salary of ₹100 and upwards, 2 are domiciled Europeans and 2 are Hindus.

In the Central Provinces there are 1 Conservator, 7 Deputy Conservators, and 7 Assistant Conservators. These officers are Europeans not domiciled in India, with the exception of 1 Deputy and 1 Assistant Conservator, who are domiciled Europeans, and 1 Assistant Conservator, who is a Hindu. Of 4 Sub-Assistant Conservators, 2 are Hindus and 2 are Mahomedans. Of 3 Forest Rangers who receive a salary of ₹100 and upwards, 1 is a domiciled European and the other 2 are Mahomedans.

The staff in Berar consists of 1 Conservator, 2 Deputy Conservators, and 2 Assistant Conservators, non-domiciled Europeans; 3 Sub-Assistant Conservators, of whom 2 are Hindus and 1 is a Mahomedan; and 8 Rangers, of whom 7 are Hindus and 1 is a Mahomedan; but only one, a Hindu, receives a salary of ₹100.

In Coorg there are one Deputy Conservator, a European, and 2 Hindu Rangers.

From the time the Government of India seriously took in hand the organization of its Forest Service as an Imperial Department, it has constantly recognized the propriety and expediency of the large employment of Natives in that field, and has taken advantage of every occasion to impress its views on the head of the Department and on the local Administrations. The opinion of the Government of India has been cordially approved by successive Secretaries of State.

In 1866, when arrangements were being made for the training of Forest officers for India in Europe, Lord Cranborne, in Despatch No. 48 of the 9th July 1866, thus expressed himself: "I think it highly important that it should be impressed on all Assistant Conservators that it is a part of their duty to endeavour to train the Natives employed in subordinate Forest posts so as to form them into an efficient staff, and give them an interest in the work of the Department. This is an object which will, of course, be only gradually attained, but it is one which the superior officers may further very much by personal attention and influence."

In June 1867 the Government of India issued orders of a general character on the subject of promoting Native subordinates in the Forest Department. It pointed out that the employment of a body of carefully trained Native subordinates and officers in each Province would make it possible thereafter to manage the Government Forests with more thoroughness and economy. The Secretary of State for India, in November of the same year, expressed his approval of the orders issued. Sufficient progress not having, in the opinion of the Governor General in Council, been made in that direction, a Resolution, No. 11F., dated 28th July 1869, was circulated to the several Local Governments. The conviction was expressed that the Forest Department was one which in all its branches offered peculiar facilities for the employment of Natives of this country, and that it appeared not only desirable but necessary to encourage the promotion of Natives to the higher appointments in the Department. Anticipating that, in order to secure satisfactory results, a more numerous Executive agency must ere long be provided, and that the employment of European officers for that purpose was inexpedient on other grounds and impracticable on the score of expense, the Government of India came to the conclusion that the Executive branch of the Forest Service must be mainly recruited from among the Natives of the country, and that to secure the service of a superior class of men reasonable prospects of promotion to the higher grades of the Department must be held out to them. Under these circumstances, the Governor General in Council deemed it expedient to make it known, for the information of all concerned, that henceforth all appointments in the Forest Department, including the highest, would be open equally to all, whether Europeans or Natives of India, who might possess the needful qualications and have earned their promotion by faithful and efficient service, and that on the promotion of officers, as well as on their first appointment to the Department, the same rules would apply to Natives of this country as to Europeans. In accordance with these views the Government of India directed that steps should at once be taken in every Province to secure the employment of Natives in all grades of the Forest Department for which they might be qualified, and that, whenever an opportunity offered, the names of deserving Native subordinate Forest officers should be submitted for promotion to the rank of Assistant Conservator. The Governor General in Council also directed the Local Governments to consider whether in special cases Native gentlemen of practical experience, who were otherwise qualified, might not be appointed Assistant Conservators at once without any previous training in the lower grades of the Department.

The Government of India, in a Despatch No. 8F., dated 3rd August 1869, reminding the Secretary of State that His Grace's predecessors had at various times commented on the propriety of employing Natives of the country in the administration of the Forests, communicated to the Secretary of State the orders it had issued in the Resolution of the 28th July 1869.

In a Despatch No. 20, dated 6th October 1869, the Secretary of State intimated his entire concurrence in the opinions of his predecessors, to which reference had been made, and

the satisfaction with which he would hear of the appointment of any competent Natives to positions of trust and consequence in the Forest Department. Adverting to the direction given by Lord Cranborne respecting the duty of Assistant Conservators to train the Native staff, and expressing his conviction of the great importance of the preservation of the Forests in India to avert the serious calamity with which their destruction threatened the country, His Grace observed that it would be necessary to employ officers specially trained in the science of Forestry in the countries where the forests were extensive, and the officers administering them were trained for the purpose as for any other profession, and that it would be unavoidable to continue this scheme until a sufficient number of skilled officers had been obtained in India, and the forests, or a part of them, were under such systematic management as to admit of men being trained in India to carry on Forest operations. His Grace continued as follows: "I allude to these circumstances, not with a view of depreciating the employment of Natives, for which I repeat my anxiety, but in order to show that the smaller cost which their employment would entail must not induce your Excellency in Council to employ them unless they are really competent to take their part in managing the forests. Some preparation will be necessary for them, and time will be required to obtain it. If Natives are appointed to posts before they are capable of fulfilling their duties, it will but retard the object we have in view and irreparable mischief may be done to the forests. * * * The surest course seems to me to be to hasten on, as far as practicable, the skilled training of all the classes of officers to be employed in the Forest Service."

The publication of the Resolution of the Government of India, No. 11F., dated 28th July 1869, resulted in the appointment of a small number of Native apprentices; but no further steps were taken until Sir Richard Temple, then Lieutenant-Governor of Bengal, in a Minute, dated 9th October 1876, suggested the establishment of a Forest School. The Inspector General of Forests submitted a detailed report on the suggestion thus made, and recommended the establishment of a Central Forest School in the North-Western Provinces.

In Despatch No. 6, dated 23rd February 1877, the Government of India observed:

"The Subordinate Staff consists, and will as a rule consist, entirely of Natives of India, and we have now under consideration certain proposals submitted to us by our Inspector General of Forests for the establishment of a Forest School in the Dehra Dun and Jaunsar Forests of the North-Western Provinces, in order to provide professional training for young men who wish to become candidates for appointment to the Forest Department as Forest Rangers and Foresters. Eventually we hope to see this projected institution extended, so as to serve the further object of preparing promising members of the Subordinate Staff, or candidates for the same, for admission into the ranks of the Superior Staff. * * * It is believed to be the general opinion among the more experienced Forest Officers * * * that for many years to come the Superior Staff of the Department must chiefly be recruited by the appointment of gentlemen who have received a professional education in the State Forests of France and Germany. There is, however, no reason why Native gentlemen should not visit Europe for the purpose of gaining admittance in this manner to the Superior Staff of the Department. Mr. Desai, it is said, entered the Department in this manner, and others will doubtless follow his example. We should give every encouragement to Native gentlemen intending to visit Europe in order to qualify for the Forest Service in this country."

"The Forest School which we contemplate may eventually be so far extended as to provide for the professional education of all candidates for the Superior Staff; but at present several conditions essentially necessary for the success of this scheme are wanting. For the establishment of a Forest School of this character, three requisites are necessary:—

"*1st*—Competent teachers with lengthened and varied practical experience.

"*2nd*—Handbooks of Forestry and the auxiliary sciences, written with special reference to Forest administration in India.

"*3rd*—Forests of sufficient extent and sufficiently varied in character, which have for some time past been managed in accordance with a well-considered working plan. No forests will answer these requirements for the produce of which there is not a constant and certain demand, and this is one reason why forests in India, which might otherwise be suitable, frequently cannot in their present state be used for purposes of instruction. Such forests must first be opened up by roads or other means of communication before a regular working plan can be introduced."

The Secretary of State, in Despatch No. 12, dated 18th October 1877, replied as follows:—

"Your proposals to recruit the Subordinate Staff as a rule entirely from Natives of India and to establish a Forest School for the education in Forest administration of the subordinate class have my full concurrence. The admission of Natives to appointments for which they are qualified is an end which I would have constantly kept in view; and this branch of administration appears to be eminently fitted for the purpose, and is, at the same time, free from many of the difficulties which affect their entrance into other professions. For the reasons you have given, it would not be practicable, at this early stage, to attempt to carry out the training of the Superior Staff in India; but there would appear to be no reason why, with the aid of the experienced officers in the Forest Department, a commencement should not be made by

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the establishment of the School you propose, in which, beginning on a modest scale, the course of study might be gradually extended."

In 1878 the Secretary of State, having received from the Government of India some suggested amendments to the Forest Department Code, noticed that, in respect to the appointments of Sub-Assistant Conservators, it appeared to be implied that the rules were made for Europeans, and that Sub-Assistants had a right of promotion to the grade of Assistants; and the opinion was expressed that the rank of Sub-Assistant should, as a general rule, though not exclusively, be filled by qualified Natives, but that those who might be appointed Sub-Assistants ought to have no right to a higher grade, although in cases of exceptional merit such promotion might be justifiable and expedient. His Lordship added that as regards Natives, probation as a Sub-Assistant would probably be found to afford the best test of fitness for promotion to the higher grades in the Forest Department.

In a Despatch No. 19, dated 9th May 1878, the Government of India expressed its assent to Lord Salisbury's views, but observed that up to that time its efforts to obtain a sufficient number of competent Natives to fill the appointment of Sub-Assistant Conservator of Forests, which entailed an amount of personal hardship and exposure extremely distasteful to educated Natives, had been unsuccessful. The Government of India feared that the difficulty would continue until the Forest School which it was about to establish at Dehra Dun had been for some time in operation.

On the 1st July 1878 the Government of India, in a Resolution No. 34A., announced its intention to establish a Forest School at Dehra Dun for the education of candidates for the appointment of Foresters or Forest Rangers, to which none but Natives of India were to be admitted as students. To this School certain forests in the neighbourhood were to be attached to afford an opportunity for the practical training of the students; and inasmuch as Forest administration in India had not then been sufficiently established to justify the expectation that students would be willing to pay for the education provided at the School, the instruction was to be at first gratuitous. It was, however, intended that eventually fees should be charged. Furthermore, to encourage and assist students who might be desirous of obtaining instruction in Forestry, but were restrained from doing so by want of means, Local Governments and Administrations were authorized to make advances to them, arrangements being made for recovering the money so advanced; and eight scholarships of ₹15 each a month were established for exceptionally promising candidates.

By Resolution No. 6F., dated 3rd February 1879, the scope of the Forest School was enlarged so as to provide for the education of Sub-Assistant Conservators. Two classes of persons were declared eligible for admission to this Department of the Forest School, *viz.*,—

(1) Forest Rangers considered by the Conservators under whom they were serving to be suitable for promotion to the superior branch of the service.

(2) In special cases passed students of the Thomason Civil Engineering College at Rurki who had received a certificate of Assistant Engineer, or officers of other Departments, or persons otherwise specially qualified.

The students of these two classes were termed probationers, and it was at the same time intimated that the Government did not, as a rule, thereafter intend to appoint any Sub-Assistant Conservators who had not first served for some time as probationers.

The Resolution of February 1879 required the sanction of the Government of India to the appointment of probationers. Resolution No. 29F., dated 5th August 1879, dispensed with this sanction in the case of Natives of India, and left the appointments to the Local Governments. At the same time it was declared that promotion to the class of Sub-Assistant Conservators would be made by the Governor General in Council on the recommendation of Local Governments.

In Resolution No. 40F., dated 23rd October 1879, it was intimated that, as a rule, no probationer would be promoted to the rank of Sub-Assistant Conservator who had not served at least two years as a Forest Ranger; that probationers who entered the School without previous experience as Forest Rangers must, in the first instance, be trained for the duties of that class in the Forest School; and that, although they might have earned, in addition to the Forest Ranger's certificate, the higher certificate required of candidates for the grade of Sub-Assistant Conservator, they would not be promoted to that grade unless they had actually served two years as Forest Rangers in their own or some other Province.

Although it was hoped that, under the orders of the 9th May 1878, Natives of superior standing might be recruited for the upper branch of the Forest Service, the anticipation was not realized. At the end of 1881 it was reported that no more than four Native probationers had been sent to the School, of whom only one would probably qualify for promotion to the grade of Sub-Assistant Conservator, and that the men who presented themselves for Rangerships and for posts in the Superior Staff respectively belonged precisely to the same class of society, and had generally reached the same standard of education.—(Letter from the Government of India to the Government of the North-Western Provinces and Oudh, No. 352F., dated 3rd June 1884.)

This opinion of the Government of the North-Western Provinces is borne out by the evidence of Mr. Fernandez, who states that it was found that many of the Ranger class had

received a better general education, and in the examinations showed greater ability in answering questions than the higher class.

Consequently the Government of India resolved to limit the work of the School to the professional training of Forest Rangers; and it having been found that some of the students were so imperfectly acquainted with English as to be unable to follow with intelligence the course of instruction given in that language, a higher educational qualification was prescribed as a condition of admission to the class. It was at the same time provided that, although no fresh probationers for the grade of Sub-Assistant Conservator would be admitted, Conservators, with the sanction of the Local Government, might send Forest Rangers who had rendered specially good service for a course of instruction at the School, and that such Rangers, if qualified, should receive a certificate of being eligible for employment as Sub-Assistant Conservators. It was considered that no Ranger over 30 years of age should be selected for this special training, but discretion was left to the Local Governments to promote deserving Native Forest Rangers who were too old to be sent to School to the grade of Sub-Assistant Conservators.

In Resolution No. 7F., dated 3rd June 1884, the Government of India, after observing that several *bonâ fide* Natives of India had been promoted to the rank of Sub-Assistant Conservators, declared its intention to maintain the principle in future, and to fill vacancies in that grade as a rule by the promotion of deserving Forest Rangers. It noticed that great difficulty had been experienced in some Provinces in finding a sufficient number of men suitable for instruction in the School who were acquainted with English and at the same time fitted for Forest work. In order to remove the difficulty and to extend the circle of selection of candidates suitable for Forest work, it directed that a class should be established in which instruction should be given in the Hindustani language, in addition to the class in which instruction was given in English.

The English class is intended for the education of Rangers; the Hindustani class for the education of Foresters. The educational qualification required for admission to the former is a certificate of having passed the Entrance examination of an Indian University on the English side; the educational qualification for the latter is a certificate of having passed the Middle School examination or its equivalent. The course of training for the Ranger's certificate extends over 18 months, and that for the Forester's certificate over 12 months; and after two years' satisfactory service as Foresters, students who have obtained the Forester's certificate are qualified for promotion to the class of Ranger.

The Lieutenant-Governor of the North-Western Provinces in 1883 expressed his regret that the original plan contemplated for the training as probationers of Native gentlemen of good position and education not already in the service had been abandoned. The reasons which had induced the Government of India to take this course were explained to him, and it was pointed out that the original scheme of the Forest School did not embrace such a class, and that it had been constituted only as an experiment. The Lieutenant-Governor considered that a longer trial might have been allowed, and that in the Forest as in other Departments of the Government service a certain number of direct appointments should be reserved for Natives of India trained in India who had not served in the inferior grades. In reply, the Government of India pointed out that, under the existing rules, either Europeans or Natives of India could, in exceptional cases, be appointed direct to the rank of Sub-Assistant Conservator; but intimated its opinion that such appointments should be made most sparingly, inasmuch as the Secretary of State was averse to the appointment to the Forest Department of Europeans in India, and experience had led the Government to the conclusion that suitable Native gentlemen very rarely presented themselves for such appointments. "The life of a junior Forest officer," it was observed, "is a very trying one, involving a very considerable amount of exposure and fatigue if he really does his duty in the forests. Native gentlemen would in nine cases out of ten find the work quite uncongenial to their tastes, and they would at best perform their duties in a perfunctory manner." At the same time the Government intimated its intention to provide in the Code then under revision that Sub-Assistant Conservators should be recruited by the occasional appointment of applicants who were not in the Forest Service, provided they satisfied the Government that they had passed the F.A. Examination at an Indian University, or an equivalent examination, and that they possessed besides certain other qualifications necessary for the duties of a Forest officer.

To illustrate the anxiety of the Secretary of State for the employment in the Department of Natives of Asiatic parentage, reference may be made to the Despatch of the 28th February 1878, already quoted, as well as to other Despatches, which in part or in whole have been laid before the Commission. Thus in Despatch No. 36, dated 24th October 1878, the Secretary of State desired it to be clearly understood that Sub-Assistants should be recruited as far as possible from Natives, even though there might not as yet be found men quite so well qualified as Europeans for the duties.

In a Despatch No. 19, dated 29th May 1879, the Secretary of State expressed his apprehension that the operations of the Forest School would be unsuited to the education of Natives, and intimated that it was not desirable to organize an institution of that character for the training of Europeans in India for the superior grades of the Forest Department.

In another Despatch No. 12, dated 5th February 1880, the Secretary of State, adverting to a memorandum forwarded to him of conditions for the admission of European probationers,

called attention to his Despatches of the 24th October 1878 and 29th May 1879, and suggested that his orders had been overlooked, inasmuch as the rules under consideration not only encouraged European candidates to come forward for appointments as Sub-Assistant Conservators, but provided for their promotion to the grades of Assistant Conservator. He requested an explanation on the subject, and directed that the rules for the admission of Europeans to the School at Dehra Dun should be held in abeyance.

The Government of India, in Despatch No. 6, dated 10th March 1880, observed that it had been obliged occasionally to engage Europeans in India for the work of the Forest Department, because the supply of trained recruits from England was small, and because competent Natives of the country were not available for the laborious work of a Forest officer; that it had no desire to increase the local European class in the Department; and that it had every intention of maintaining the principle that the subordinate ranks of the Department should be filled by Natives of the country trained to their profession at the Forest School; and at the same time it pointed out that Eurasians or East Indians were, by the Statute 33 Vic., Cap. 3, section 6, included in the term Natives of India, and declared equally eligible for appointments in the public service.

In acknowledging the Despatch from the Secretary of State of the 5th February 1880, the Government of India called attention to its Despatch No. 5, dated 10th March 1880. A statement was given of the number of Natives and Europeans who were attending the School, and an explanation was afforded of the circumstances under which Europeans were admitted to the School when it was first opened. The extract is as follows: "We forward with this Despatch a list showing the students now under instruction, from which it will be observed that there are at present four Europeans, one Eurasian, and four Natives. The four Europeans admitted into the School had, under former arrangements, complied with all the conditions required by us for the admission of candidates to the class of Sub-Assistant Conservator. We have, however, ruled that no more Europeans shall be admitted for some time to come; and endeavour is being made to make the School really available for the training of Natives of the country."

The Secretary of State, in Despatch No. 49, dated 3rd June 1880, adverting to the explanations respecting the engagement of Europeans in India, directed that as he had determined to increase the supply of trained recruits from England, the practice should be discontinued; and that if occasion arose for the temporary employment of additional officers in the superior branch of the Department, and qualified Natives of the country were not available, recourse should be had to the Civil Service, the Staff Corps, or the Public Works Department.

On the 5th October 1880 the Government of India, representing its inability to find competent Natives, and its desire to employ less expensive agency than that recruited in England until trained Natives were forthcoming, solicited sanction to the appointment within a few years thereafter of not more than six Europeans, selected from the Survey of India or from the passed students at Rurki as probationers, who would be eligible for promotion to Sub-Assistant Conservatorships.

The Secretary of State, on the 6th January 1881, in sanctioning these appointments wished it to be understood that he did not in any way desire to depart from the principle laid down by his predecessor that the grade of Sub-Assistant Conservator should be filled by Natives of India, and intimated that it was only on the assurance of the Government of India that qualified Natives were not available that he assented to the proposition.

The Government of India, in its Resolution No. 15F., dated 1st December 1881 announced that the appointment of Europeans or of Natives of India with European habits as probationers or Sub-Assistant Conservators of Forests would be discontinued, save in those cases in which the Government of India might desire to make an exception in favor of specially qualified candidates.

In a memorial addressed to the Secretary of State by Mr. D. S. White, on behalf of the Eurasian and Anglo-Indian Association of Southern India, on the subject of the more extended employment of Eurasians and domiciled Europeans in the public service, special reference was made to the Forest Department. In forwarding this memorial* to the Secretary of State, the Government of India observed:

* In a Despatch No. 55, dated 13th October 1884.

"We may remind Your Lordship that for the superior grades of that service it is essential that we should have professionally trained officers, and that these can at present only be secured in Europe. There can be no objection to the occasional promotion to the Controlling Staff of specially deserving Sub-Assistant Conservators or upper subordinates; but any thing like a general recruitment of the staff in India would at the present stage be fatal to the efficiency of the Department. Our Forest School at Dehra Dun is designed for the instruction and improvement of Forest Rangers, and we can only expect to have an efficient executive service for work in the forests if its members enter in the lowest grade, and receive a thorough practical training. But the pay of a Forest Ranger is only ₹50 monthly to start with; and although suitable Natives in the strict sense of the term can easily be procured on that pay, it is impossible to secure Europeans or Eurasians of respectable up-bringing on those terms. To the class of persons likely to accept service at this low salary it is not by any means desirable to entrust the responsible duties attaching to these appointments."

The Secretary of State, in Despatch No. 8, dated 29th January 1885, observed that while he entirely sympathized with the memorialists in their desire that the class of persons referred

to should obtain such fair share of the higher appointments in the Government service as their merits and qualifications might entitle them to, he agreed with the Government of India and the Government of Madras in thinking it undesirable to adopt any special measures for their benefit; and that, as well in respect of domiciled Europeans and Eurasians as of Natives of Asiatic parentage, the question of recruitment in India for the superior grades of the Forest Department must depend to a great extent on the facilities afforded for technical education.

Sir D. Brandis has been so good as to forward to the Sub-Committee a valuable note, of which the whole will no doubt be studied with much interest. As bearing on the question of technical education for the Forest Department, it will be convenient to refer to a passage which explains the course prescribed in Prussia for candidates for employment in the Forest Department.

Sir D. Brandis informs the Sub-Committee that the branches of the Forest Service, which in India correspond with the Executive and Controlling Branches, constitute one branch only in those countries where Forest administration is most completely organized. Candidates for employment in the Forest Department in Prussia must have passed the closing examination at a Gymnasium (an examination equal at least to the F.A., if not to the ordinary B.A., of an Indian University), and must in that examination have passed with credit in Mathematics. The candidates then undergo an apprenticeship of one year in one of the State Forest Districts, and after studying for two years at a Forest School and one year at a University undergo their first examination, which is a pass and not a competitive examination. A high standard is fixed, which must be attained: the subjects required are all branches of Forestry, Surveying, Pure Mathematics, Statics, Mechanics, selected branches of Jurisprudence, Botany, Zoology, Mineralogy, Physics, and Chemistry. The candidates then spend two years in practical work in several Forest Districts, after which they present themselves for the second examination. The subjects required include all branches of Forestry, but the questions asked have more special reference to the actual requirements of the service than was the case at the first examination. Special attention is also paid to those branches of Civil and Criminal Law and Procedure with which a Forest officer must be familiar, as well as to Political Economy. Those who have successfully passed the second examination receive the designation of Forest Assessor, and are eligible for appointments in the State Forest Service. Government, however, is in no way obliged to find employment for passed candidates. As far as practicable, they are employed temporarily as Assistants in the Working Plans Branch in the Forest Division of Provincial Governments. Those who distinguish themselves by industry, energy, and special aptitude for the work are selected to fill such vacancies as may arise. Those who do not find such employment obtain appointments in Forests belonging to towns and villages, public corporations, or private proprietors. The first appointment in the State Service which a Forest Assessor looks forward to is that of Oberförster, or District Forest officer, which corresponds to that of Forest Ranger in the Indian Forest Service. The average area of a forest district under an Oberförster in the Prussian State Forests is 9,600 acres, about one-half of what is intended to be the average charge of a Forest Ranger in India. The Prussian State Forests aggregate 6,597,000 acres, and the number of officers of the Oberförster class is 677; while the number of Controlling and Inspecting officers, whose duties correspond to those of the Controlling Staff in India, is 129. This staff comprises seven chief officers attached to the Ministry of Agriculture, State Domains, and Forests, who have the rank and designation of Oberland Forstermeister, Oberförstmeister and Förstmeister. These officers do the work, which in India, for a much larger area of State Forests, is attempted to be performed by the Inspector General and Assistant Inspector General of Forests. In the same class are the Directors of Forest Schools and the Inspecting officers who are attached to Provincial Governments, and whose duties correspond to those of Conservators and Deputy and Assistant Conservators in India. Of the officers holding the rank of Oberförster, only the most capable and distinguished are promoted to the class of Inspecting and Controlling officers; the majority remain in the class of Oberförster to the end of their service.

Major Bailey, who was appointed to the Directorship of the Forest School at Dehra Dun on its first establishment, has furnished the Sub-Committee with a detailed account of the course of instruction which the candidates selected in England formerly underwent at Nancy. This course extended over a period of 2 years and 4½ months. It must be remembered that the candidates had been selected by a competitive examination, and presumably had received a good general education and possessed industry and intelligence.

Major Bailey was invited to inform the Sub-Committee as to the probable cost of equipping the Dehra Dun School in such a manner as to enable it to undertake the training of officers competent to discharge the duties of the Controlling Branch. Major Bailey points out that at present instruction is given by officers who are at the same time charged with duties in the Forest, and that for imparting higher instruction it would be necessary to select Professors specially qualified to impart the knowledge they possessed. He considers that it would not be possible to expand the organization of the Dehra School, so as to combine, in the ordinary sense of the term, the teaching of men intended for the position of Rangers and Sub-Assistant Conservators with that of men who are to enter the controlling grades. The educational attainments of the two classes would be different, and teaching suitable for the higher class would be beyond the intelligence of the lower. Even when the same subjects were taught to the two classes, the manner of teaching them would not be the same. The instruction imparted to the lower class would be far more rudimentary than that imparted to the higher, and the duration of the course prescribed for the higher class would be much greater than that prescribed for the lower. Major Bailey considers that an expenditure of R50,000 would be

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necessary for buildings and furniture, and an annual expenditure of R78,880 in addition to charges on account of furlough, pay, and pensions of the teaching staff, and the expense of repairs.

The Officiating Inspector General of Forests in his Departmental note has dealt with the same questions. For administrative reasons, he entertains an objection to educate officers of the Controlling and Executive Staff at one and the same technical school; and even if he considered it otherwise feasible, which, in view of the contemplated training of one hundred students for the Executive Staff, he does not, he does not approve of the Dehra Forest School being developed so as to include the training of officers for the Controlling Staff. The transfer of the technical training of the Superior Staff to India would, in his opinion, involve the establishment of a new institution; and inasmuch as educational talent of the kind required is cheaper in Europe than in India, and such a college as would be necessary for the proper instruction of the Superior Staff of Forest officers could combine in Europe technical training for other professions, the cost of such an institution in India would, apart from other reasons, condemn the scheme, seeing that no more than from 8 to 12 recruits would be required annually to maintain the service at the strength contemplated for some years to come. But, in addition to the objections on the score of expense, there are other reasons why the Officiating Inspector General considers the scheme at present impracticable. Forestry in India has been so recently treated scientifically that the theoretical teaching cannot be illustrated by reference to an inspection on the ground of forests long subject to systematic treatment and working. Moreover, he considers it necessary that a Forest officer in the Controlling Staff should make himself acquainted with the industries connected with Forest administration and with the mechanical and other arrangements which are employed in economizing labour in the forests; and he observes that although some of these industries have been established, and many of the mechanical contrivances have been adopted in various parts of India, it would be necessary that the student should travel over a wide area to obtain a practical acquaintance with them; whereas in Europe this knowledge would be gained at a very much smaller expenditure of time and money.

He urges that the recruitment in England is open to all classes, and he points to the circumstance that there are already in the Controlling Branch not only Statutory Natives of India, but also Natives of Asiatic extraction who have undergone training in Europe, as dispensing with the necessity for the establishment of an institution in India at a cost out of all proportion to the results to be obtained by it.

The Officiating Inspector General attaches the greatest importance to the excellence of each officer in the Controlling Staff, seeing that for economical reasons it has been resolved to keep that staff numerically far weaker than in other countries where the system of State Forests prevails. Officers of the Controlling Staff in India are, he observes, promoted at me early age to charges which in those countries would be filled only by officers of more mature experience; and he apprehends that it will be found not the least difficult among the problems presented by the contemplated organization of the Department in India how to secure the administration from the disadvantages incidental to these arrangements. Sir D. Brandis apparently shares these apprehensions; for he observes that as the forest nurseries in India develop, a measure which he proposed when the organization was made will doubtless be carried out more fully than has hitherto been done, *viz.*, that young officers who come to India for the Controlling Staff should always commence their career in the ranks of Executive officers; that after they have acquired the needful familiarity with the language, they should be placed in charge of Forest Ranges; and that they should not be entrusted with the duties of Controlling officers until they have proved their fitness for such duties by service as Executive officers. The Officiating Inspector General desires that the practice of rewarding exceptionally excellent service in the Executive Staff by promotion to the Controlling Staff should be continued; but he advocates that officers thus selected should be sent to Europe to complete their scientific training; otherwise he fears that they cannot be utilized for the more important positions for which such training is a question of constantly increasing importance.

Sir D. Brandis mentions as another measure originally proposed by him, to which fuller effect would hereafter probably be given, the promotion of officers from the Executive to Controlling appointments when they are not too far advanced in years and have rendered distinguished service. He advocates this exceptional promotion because of the powerful and beneficial effect it will have on the character of the Native members of the Executive Branch. He does not indeed propose that men selected should necessarily be sent to England, but he mentions as among the advantages possessed by English officers their familiarity with the progress of Forestry in Europe; and he advises that all superior Forest officers, Native as well as European, should be encouraged to keep themselves acquainted with the science and practice of Forest management in Europe, and with the experience gained in those countries where it is most understood.

The Officiating Inspector General confirms the evidence of Mr. Fernandez, the Deputy Director of the Dehra School, as to the insufficiency of the knowledge of English and Mathematics possessed by candidates for admission to the Forest School. This has imposed on him the necessity of recommending an entrance examination as well for candidates for Rangerships as for those who aspire to the post of Sub-Assistant Conservator. The Officiating Inspector General has proposed that students qualifying for direct appointments as Sub-Assistant Conservators should maintain themselves during the course of their studies, and remain for six months longer at the School than Rangers, in order to study Forest and Land Revenue Law, the Forest Code, and the several principles and rules of administration.

Originally the pupils at the Forest School not only received instruction without charge, but such of them as held posts in the Department drew the pay of their posts; and even apprentices received an allowance of from ₹15 to ₹20. The salary paid to the majority of the pupils was at the rate of ₹100, in addition to travelling allowances when in camp. The Deputy Director of the Forest School has informed the Sub-Committee that of late applications for admission have been received from persons of the same social classes as the salaried pupils who are willing to attend the School without salary, and that two of such students have completed their course and received appointments.

The Officiating Inspector General desires to bring to the notice of the Commission the serious disadvantage under which he believes the Department labours in the recruitment of its Controlling Staff, in that the officers, although selected in the same way and educated in the same College as the officers recruited in England for the Public Works Department, have neither the same prospects nor the same pension rules as are enjoyed by officers in the Public Works Department. The average pay in the Forest Department amounts, according to an estimate prepared by him, to ₹635 as compared with ₹696 in the Public Works Department.

Several witnesses have pointed out that the competition in England attracts very many fewer candidates than it did formerly. Mr. Fernandez, a Native of Surat, failed by 7 or 8 places at the examination for the Covenanted Civil Service, but subsequently secured the first place among 49 competitors for three appointments in the Forest Department. He states that there are now rarely more than three or four competitors for each vacancy, and attributes this result to the following causes, *viz.*, that the more liberal rules respecting pension have not been extended to the Department; that the prospects of promotion are less favorable than were originally looked for; that the Conservatorships are not sufficiently paid; and that the frequent changes in the value of the rupee render the sterling value of the pension altogether uncertain.

Mr. Baden-Powell, Judge of the Chief Court of the Punjab, and formerly in charge of the Forest Department in that Province, has also expressed the strongest objections to the existing arrangements of the Department respecting pay and pension.

Mr. Fernandez, whose views the Sub-Committee to a great extent adopts, considers the following qualifications essential for officers in the Controlling Staff, *viz.*,—(1) strong constitution; (2) active habits and physique; (3) cheerfulness in submitting to discomfort and privation; (4) a sound general and special education, inasmuch as Forestry in India is, and for the next 50 years will be, to a great extent, a matter of original research, for which a well balanced, thoroughly disciplined scientific mind is a *sine quâ non*; (5) force of character combined with tact, seeing that the work of the Forest Department is closely watched by the local Executive service, jealous in protecting private rights from invasion; (6) a mind which is at once practical, fertile in resource, and capable of combining means to ends, in illustration of the importance of which he instances the case of a forest fire; and (7) administrative ability and culture sufficiently liberal to entitle an officer to social equality with members of the Executive Service. In a less degree the same qualifications are required in the officers of the Executive Branch of the service. For the Protective Staff the requisite qualifications are—(1) a good physique; (2) honesty; (3) such knowledge of Forest Law and the authority conferred on them as will enable them to discharge their duties as custodians of the forests; and (4) such discretion as is required in Police officers generally, so as to enable them to exercise their powers without oppression.

The same classes compete for employment in the Forest Department as seek service in the Public Works Department. The European officers recruited in England come from the same social classes and have received the same preliminary education as the successful competitors for appointments in the Public Works Department conferred on students at Cooper's Hill. The Officiating Inspector General has pointed out that some Natives of India, even of Asiatic parentage, have succeeded in entering the service by competition in England; but the number has been much smaller than could be desired. The prospects of officers of the Executive Branch, notwithstanding the occasional promotion of members of that branch to the Controlling Staff, are so greatly inferior to the pecuniary prospects of officers locally recruited for other Departments of the public service, that they have attracted very few Asiatics who have received a liberal education. Moreover, the life of a Forest officer would not be congenial to the races of Asiatics among whom education has as yet made most progress. As education reaches the more virile and energetic races, there is no doubt that a larger number of educated Natives will be found who will exhibit no less preference for active employment out of doors than is at present exhibited by Europeans, and to a less extent by Eurasians. Instances have been mentioned of Native officers, notably a Maratha and a north-country Mahomedan, who have exhibited the physical and social qualities requisite in officers of the Department. The proposals of the Director General largely to increase the numerical strength of the Executive Branch and to enhance the pay of the higher grades will doubtless attract to the Department Natives of superior education, from whom selections may be more freely made for the higher grades of the service.

In a letter addressed by the Government of Bengal to the Government of India, No. 25T.R., dated 9th June 1887, the Lieutenant-Governor expresses his opinion that the arrangement whereby the officers for the higher appointments are recruited partly in England and partly by the promotion of Sub-Assistant Conservators in India is unexceptionable; but he observes that in practice recourse has not been had in recent years to the second method of appointment, and that this fact, coupled with the distaste generally felt in India for service in the lower grades of the Department, explains the smallness of the number of Natives now holding

responsible posts in the Department. His Honor declares his desire to keep this avenue to admission as widely open as circumstances may admit, and he intimates that an opportunity may soon occur for making such an appointment. He adds that when a vacancy occurs in the grade of Sub-Assistant Conservator, which can be filled by a direct appointment, due notice will be given of the fact by public advertisement, so as to afford facilities for application to any educated men who may desire to enter the service.

Mr. A. L. Home, Conservator of Forests, Bengal, states, in a note furnished by him as Departmental Member in Bengal, that the greater number of applications for employment in the Department are made by Hindus. During the current official year 13 Hindus, 1 Eurasian, and 1 Mahomedan applied for employment. So far as his experience goes, he considers one class of the community as good as another for Forest work; but he professes himself unable to name a single man as coming up to the standard required in a really efficient member of the Executive Staff. He declares that he has never found a Bengali who had an actual liking for the work of a Forest Ranger or Forester in ranges at a distance from villages and towns, though he mentions a Bengali Sub-Assistant Conservator who has conscientiously combated this prejudice against forest life, and done his duty to the best of his ability.

Two witnesses were examined in Calcutta.

Mr. H. H. Davis, Deputy Conservator of Forests, Bengal, gave it as his opinion that Europeans educated at a Hill School and sent to Rurki, and then to Dehra Dun, are about as qualified officers as those who come out from England, and that such Europeans are superior to the average of Eurasians. He considered that the Natives of Bengal are neither physically fit for the hardships of a forest life nor desirous of following it, except in places where the work is easy; and he mentioned that in Orissa and Chota Nagpur he has found it difficult to obtain Natives to fill vacancies among the Forest Rangers.

Mr. E. G. Chester, Deputy Conservator of Forests, Bengal, expressed a less favorable opinion of the efficiency of the training imparted by the Dehra Dun School; but he allowed that the only Rurki man whom he has met in the Superior Staff is a good man. He expressed an unfavorable opinion of Bengalis as Forest officers; but he admitted that there is a great deal of sickness both among Natives and Europeans in his division owing to jungle fever and variations of temperature. He complained of the refusal of the Secretary of State to extend the favorable pension rules to the officers of the Forest Department recruited in England.

Mr. C. Bagshawe, Departmental Member for the North-Western Provinces, urges that the inferior position of the superior officers of the Department in respect of pensions, as compared with that of their brother officers in the Public Works and Telegraph Departments, injuriously affects the interests of Government. He calls attention to the circumstance that within the last twelve years the number of candidates has fallen from about twelve for each vacancy to twelve for five vacancies in 1886. He also considers that it is inexpedient that Forest officers should be prevented from retiring on a proportionate pension after 20 years' service, inasmuch as the best work performed by a Forest officer, unless he has attained to the higher administrative offices, is that performed during the earlier portion of his service. He states that in his opinion it is difficult to obtain in India suitable men for employment in the superior branches of the Service; that the profession is not one to which Native gentlemen aspire; and that it would be undesirable to promote men of superior status into the higher ranks of the Department unless they had by approved service shown themselves specially qualified for such promotion. He considers that Europeans as well as Natives of Asiatic descent should be recruited for the Executive Service. He shows that great difficulty has been experienced in obtaining well educated candidates for the Ranger class, as the best men from the Colleges and High Schools prefer the Subordinate Executive and Judicial Branches of the public service, and attributes the distaste shown by educated Natives for the Forest Service to the unhealthy character of the Forest Districts, the isolation, absence of all pleasures of civilized life, the laborious character of the work, and the prolonged separation from family. Applications for employment come most frequently, he states, from sons of officials; but the best candidates are the sons of landholders and of men living away from towns. He considers that there are good Hindu subordinates of all classes, and equally good Mahomedans and many excellent Europeans and Eurasians in the service. He thinks it necessary at present to recruit the Controlling Staff mainly in England, but would not close the door to promotion to that branch to suitable men.

Two witnesses were examined in the North-West Provinces.

Mr. W. R. Fisher, Officiating Director of the Dehra Dun Forest School, spoke strongly of the importance of the administration of the Department by officers of energy, firmness, and good status as well as of high professional attainments. In his opinion educated Natives dislike employment in the jungle, and prefer judicial duties or Police work to exposure in the open air throughout the day. In the Controlling Staff he considers that Natives would be likely to leave the work too much to their subordinates. He advocates the proposed improvement of the pay of the Executive Staff, which would render it a suitable field for the employment of Natives educated in India, and maintains that ordinarily a European training should be insisted upon as a qualification for employment in the Controlling Branch.

Mr. E. E. Fernandez considered the pay and chances of promotion in the Executive grade insufficient to attract to or retain in the Department Natives of sufficiently liberal education who are unaccustomed to an out-door life. He would require the qualification of a B.A. degree on the part of all Native candidates for appointments to the Sub-Assistant class, not only as a

guarantee of sufficient education in English to follow the English course of lectures, but also because he regards the possession of a degree indicative of mental culture, better manners, and a higher moral tone. Admitting that the present prospects of the service are unattractive to educated Natives, he insisted that careful selection and probation are desirable. In his experience educated Natives are impatient of hardships to which men of other races would submit with cheerfulness, and if influenced by caste prejudices are less efficient officers than they otherwise might be. He stated that he is personally acquainted with two Natives in the Executive Staff, who, he thinks, would be fit for promotion to the Controlling grade; and that he has found Mahomedans usually better Forest officers than Hindus, for although they have less education, they have greater force of character and endurance, and fewer prejudices. He also described a Maratha Brahman, a man of fair education and possessed of landed estates, as a most efficient Native officer, and one who would not allow caste prejudices to interfere with his work.

Major F. Bailey, Conservator of Forests, Departmental Member in the Punjab, observes that it is highly desirable that all members of the Controlling and Executive Staff should possess the professional attainments acquired by training in the Forest class at Cooper's Hill College and the Dehra Dun School respectively, but that at present in the Punjab only 39 per cent. of the Controlling Staff have undergone a complete course of professional training, and only 37 per cent. of the Executive Staff have passed through the School at Dehra Dun. He mentions also that only two men from the Punjab have attended the class of Foresters at Dehra Dun; for although it is intended that men of that class and Forest Guards should receive some kind of professional training, it has not been found possible to make the necessary arrangements. He observes, however, that when employed under capable officers of the Controlling or Executive Staff, officers of the Protective Staff are found in course of time to obtain a fair standard of professional knowledge. He states that the few candidates who were appointed direct to the class of Sub-Assistant Conservator were, generally speaking, the sons of European Government servants or pensioners domiciled in India; and the Rangers, for the most part, the sons of Government servants, zemindars, shopkeepers, and cultivators in about equal proportions; that he is unable to say that any one class is markedly superior to the others; that the appointments are sought more by Hindus than by Mahomedans; that as a general rule the attainments of the candidates are not of a sufficiently high order; and that it is difficult to select among men who have passed the Entrance Examination of an Indian University candidates who could profitably follow the courses at the Dehra Dun Forest School.

Major Bailey in a subsequent note insists that the number of men employed in the lower grade of Rangers is too great, and that the number in the higher grades should be increased; that domiciled Europeans and Eurasians should enter in the same grades as Natives; and that a certain proportion of the Sub-Assistants posts should be reserved for the direct appointment of the best qualified of all these classes, though he admits that the prospect of promotion of Sub-Assistants to the Controlling grade is remote.

The following gentlemen were examined by the Sub-Committee:

Mr. Baden-Powell, Judge of the Chief Court, Punjab, and formerly in charge of the Forest Department in the Punjab, considered that it would be found more convenient to recruit for the Superior Service in Europe than to extend the scope of the School at Dehra Dun. He did not object to the promotion of Forest Rangers to the Controlling Staff in extremely exceptional cases; but he declared that he had never seen a Native Forest officer whom he would entrust with the control of a Forest Division. He considered that very few educated Natives would care to live the life of exposure and hardship entailed on officers holding Controlling appointments in the Forest Department, or were physically competent to do so; but he thought that a few such men might be looked for as education advanced amongst the more manly races of Northern India. He declared his unwillingness to allow any Native to be appointed to the upper grades of the service under any conditions whatever, who had not shown his fitness to manage a Forest Range by the exhibition of such qualities as self-reliance, activity, power of controlling his subordinates, tact in dealing with other officials, and self-respect; and he professed himself altogether averse to the idea of appointing any young Native gentleman who has taken a University degree and happens to be of good family direct to an Assistant Conservatorship. He did not consider that domiciled Europeans are likely to make as good Rangers as Natives. Having regard to the duties of Forest Rangers, he considered that the pay should be sufficient to attract the best men obtainable to the subordinate service, and admitted that the present pay of the grade is calculated to produce dishonesty and oppression; and he stated that the Forest Guard is worse paid than the Policeman, whose pay is in his judgment insufficient.

Colonel E. G. Wace, Financial Commissioner of the Punjab, expressed a strong opinion that special training in India is essential for the efficiency of the superior officers in the Forest Department, notwithstanding they might have received technical training in Europe, because of the different conditions of climate and the local difficulties which present themselves to the prosecution of Forestry in India. So long as the Schools in India are no better than they now are, he considered it necessary that recruits for the higher offices in the Department should be obtained in England. He believed that the number of domiciled Europeans who received a high education is at present comparatively limited, and that the number of educated Natives, whose physique and energy are such as to fit them for an out-door life in the Forest and other Departments, is also at present very limited, inasmuch as education has scarcely reached those races in which energy principally resides. He thought it possible that the School at Dehra might be adapted at no great expense to give a superior training in Forestry;

but he thought that it would be dangerous to introduce a change in the higher staff of the Forest Department too precipitately. He regarded it as important that the Executive Service of each district or division should be, as far as possible, recruited locally on account of the strong difference of race and habits which are to be found within the area of a single Province like the Punjab. He believed that Natives are not impatient of the employment of domiciled Europeans and Eurasians, and that in some cases fathers of men of these races would be willing to help their sons during their service in the lower grades; but he thought that there would be no necessity to recruit domiciled Europeans for these appointments in the Punjab, as the Natives obtainable for such employment are very active, very energetic, and willing to undergo considerable hardship in the earlier period of their service. While he considered that equal pensions should be assigned to officers of the different Departments who are recruited under similar circumstances, he expressed himself very strongly as to the inexpediency of throwing on the Government too great a burden in respect of pensions, and advocated the insistence upon a contribution from officers towards their pensions, at least when they had reached the higher grades of the service.

Mr. W. Coldstream, Officiating Commissioner of Lahore, advised that the Forest officer selected in England should be placed under the supervision of some officer other than his departmental superior on his first arrival from England, and suggested that he might with advantage be trained for a year or two under a Settlement officer or Deputy Commissioner in settlement work, or routine district work on the Revenue side. He expressed himself satisfied that at present the employment of Europeans in the Controlling grades is very desirable; but he mentioned that there are in the Province Natives of education fit to undertake arduous duties in the open air. He believed that the physical endurance of Bengali gentlemen is fairly good, and that those who have a taste for the work would probably be efficient for Revenue work as regards physical requirements.

Mr. C. F. Elliott, Deputy Conservator of Forests, Multan, considered that the men trained at Dehra Dun received a sufficiently good professional education for the duties of Rangers, and mentioned that two Natives who had served under him in that grade had given sufficient proof of endurance. He did not consider the education given at the Dehra Dun School up to the standard required for the Controlling grades.

Mr. F. O. Lemarchand, Deputy Conservator of Forests, Kangra, stated that one of his Sub-Assistant Conservators, a Native, did his work very well, as did also the European Rangers who had served under him. He gave a less favorable opinion of his subordinate Native Rangers. In respect of energy he had found the Europeans and the Natives equally qualified, as well as in ability to stand exposure.

Mr. A. M. Reuther, Deputy Conservator of Forests, Lahore, stated that the Natives, of whom he had had experience as Forest officers, were wanting in zeal and energy, perfunctory in the discharge of their duties, and had not passed through the Forest School. He mentioned that one domiciled European who had served under him had proved an entire failure, and had been dismissed from the Department; but that another performed his duties fairly well. Both this witness and Mr. Lemarchand complained of the pension and furlough rules.

Mr. E. S. Carr, Deputy Conservator of Forests, Lahore, considered the training at the Dehra Dun School sufficient for the technical education of Forest Rangers, and saw no reason why in course of time the School should not undertake the training of men for the higher appointments. He added that it was desirable that men should, if possible, be trained in India where their actual work lay. He did not consider Natives as efficient as Europeans for employment in the Department, and asserted that he had never seen a Native who was fit to hold a controlling appointment; but he admitted that his experience of them was not very great, as he had only been in the Department about five years. He strongly urged the claims of the officers recruited in England to the more favorable pension rules granted to the Public Works Department.

Mian Moti Singh, Rajput, and a Forest Ranger, complained that Natives are practically excluded from the Department, inasmuch as all the highest posts in the Superior and in the Executive Staff are occupied by Europeans. He admitted that the Europeans he referred to as holding the best Rangers' appointments are domiciled, and were appointed before the Dehra Dun School was established; and he also admitted that he did not at present know of any Natives fit to be Conservators or Deputy Conservators. He stated that the Natives who would be inclined to enter the Department could not go to England by reason of their poverty, and that those who are wealthy enough to afford the journey to Europe prefer other more lucrative and less hard-worked professions. He considered that the prospects of Natives in the Forest Department are inferior to those of Natives in the Revenue Department, while the hardships entailed on Forest Officers are far greater.

Mian Nizam-ud-din, President of the Zemindars' Reforming Society in the Punjab, complained that Natives are at present ineligible for the superior appointments in the Department, because the Controlling Staff is almost entirely European. He maintained that if Natives were guaranteed appointments on proof of fitness they would make themselves efficient. When reminded that there is no rule which prohibits the admission of Natives, he urged that there is no School in India capable of giving such an education as is requisite for the Controlling Service, and that the Natives are not in a position to go to Europe and qualify themselves. He was unable to say whether there would be a sufficient number of Native students acquainted with the rudimentary branches of science to take advantage of higher education if the Forest School raised the standard of its teaching. He declared that he knew

many Natives who would be willing to accept appointments in the higher grades of the service, and among them two of his brothers. He admitted that his brothers would not enter the service as Forest Rangers even if they were offered appointments, though they would accept Tahsildarships. He mentioned that one of his brothers was thinking of going to England to study for the Bar. He was not aware that Sub-Assistant Conservators might be promoted to the Controlling Staff.

Colonel J. C. Doveton, the Conservator of the Central Provinces, reports that direct appointments to the class of Sub-Assistant Conservator are exceptional; that the appointments were intended for Natives; but that out of six applications in respect of probable vacancies which have been presented to him, five have been made by, or on behalf of, Europeans. He states that Sub-Assistant Conservators are, under existing rules, ordinarily recruited from Forest Rangers and Foresters; that in former years there was much competition for appointments in the classes of Forest Rangers and Foresters by Mahomedans, whose forefathers had come from Southern India and settled in the Central Provinces; but that since the passing of the Entrance examination of the Calcutta University and the Middle School examination have been required as qualifications for admission to them, the candidates have been principally Hindus, and by far the greater number Maratha Brahmans.

Of the classes who seek employment in the Forest Department, he considers there can be no doubt that Europeans and Mahomedans of Southern India adapt themselves most readily to the life of a Forest officer in the Central Provinces, and that Mahomedans are more hardy and under sickness display greater endurance than any other class of Natives. He observes that on Hindus, especially on Brahmans, forest life entails more or less hardship; and that while such a life is more or less distasteful to Asiatic Natives, it is not so to Europeans or people of European extraction; that Europeans accept Forest service because it is a profession of their choice, whereas Natives accept it rather for the sake of the income to be derived from it. For these reasons, and also for the reason that Europeans are, as a rule, capable of exercising more personal influence, and are not exposed to the same feelings of jealousy on the part of officials below them, he considers them better fitted for the duties of officers of the Controlling Staff; and, if they receive the same training as Natives, he believes they will also prove the most efficient Foresters.

The Chief Commissioner sees no ground for suggesting any change in the orders regulating admission to the Forest Department.

Mr. Mann, the Conservator, Assam, reports that all classes of the community seek employment in the Forest Department, and that all are equally capable of rendering efficient service in that Province; that for the higher appointments Bengalis have been found more reliable than Assamis; but that for the lower appointments, such as Guards, the various hill tribes in the Province furnish the best material.

The Chief Commissioner believes that the present organization of the Department is well suited for the ends in view, and that the measures already in force for the instruction of Natives of India in Forestry are likely, in course of time, to supply a considerable number of men qualified to take up Forest appointments. But he observes that in Assam Forest officers are exposed to many hardships, and must necessarily be persons of strong constitution and active habits; that these qualifications are not often found combined in Natives with the necessary scientific attainments; and that it is not to be expected that the profession of Forest officer in Assam will offer many attractions to educated Natives of the country.

Colonel G. J. Van Someren, the Conservator of Berar, states that Rangers are usually recruited from the rank of Foresters, and, except where special qualifications authorize a departure from this rule, are promoted from grade to grade by seniority. The order of the Government of India that, except for special reasons, the appointment of Ranger should be conferred only on a man who has obtained a Ranger's certificate at the Forest School at Dehra Dun is in force in Berar; but, owing to the absence of qualified men, it has as yet been impossible to give full effect to the order, and only one officer in these grades has obtained the certificate.

There are three grades of Foresters on salaries of R35, R25, and R15 respectively. The Conservator considers that as it is intended to recruit the Ranger class ordinarily from these grades, care must be taken to appoint to them men of some education, and that at least some of them should possess a knowledge of English and sufficient acquaintance with Mathematics to enable them, when sent to the Forest School, to profit by the instruction available there; and that all must be able to read and write Marathi fluently. He states that the rule that no person should be sent to the Forest School who has not passed the Entrance examination on the English side at a University has been modified in favor of men from this Province; that it was intended that four Foresters should attend the School to be trained as Rangers; but that this has hitherto been impracticable; that one is now attending the School, and that another was to be sent in the present year.

The Conservator mentions that Forest Guards are appointed by the Deputy Commissioners, who, under the system obtaining in Berar, are responsible, with the aid of their District Forest officers, for the working of the forests in their districts; that stout, able-bodied men with physical courage are selected; and that such of them as are able to read and write Marathi, and are otherwise qualified, are eligible for promotion to the lower grade of Foresters. In the Melghât there is a staff of Naka Karkuns, 25 in number, who collect, at fixed stations where they reside, the royalties due on the forest produce exported

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from the Melghât. They receive salaries varying from ₹10 to ₹25, and are generally Brahmans.

The Conservator is of opinion that the professional attainments of the Controlling Staff cannot be too high. He observes that in Berar, as elsewhere, much has been done in selecting lands to be permanently placed in the list of State Forests, in settling rights and privileges, in demarcating the forests, in protecting them from fire, in introducing a system of transport and sale of forest produce, in opening out roads on a system which admits of regular expansion, and in organizing the Department; and that this has been accomplished while the Forest Administration has been almost entirely in the hands of men who had had no special training other than that which they had acquired by actual experience; and who, as they retired, would nevertheless hand over to their successors in good condition a valuable property, which, when they took it in hand, was fast deteriorating and little cared for; but that, apart from the protection and administration of forests, there was now required a knowledge of a more special and technical character than had hitherto sufficed; that working-plans had to be framed to provide at once for the systematic out-turn of produce and the improvement of the forests; that trained observation was required for the collection of the *data* on which such plans must be based, and a scientific Forest training for the application of general principles to such *data*. He considers that the officers appointed by the Secretary of State have, as a body, justified the expectations formed of them. He points out that a good working knowledge of Botany and the principles of Vegetable Physiology, of the diseases of trees and their causes, of the insects which injure trees or timber, of the properties of vegetable growths, of soils, their formation and influence on the growth of trees, and some acquaintance with Engineering are the technical requirements of a Forest officer. He observes that to acquire these qualifications necessitates a training of some duration, and presupposes a good general education and the special study of Mathematics, Chemistry, and Natural Science. In order to complete the training they have received in Europe, he recommends that every officer appointed in England should be required to pass 18 months at the School at Dehra Dun, so as to learn what is required in the management of a forest in India, and to go through a course of Forest accounts and returns.

He regards the course of instruction now given at Dehra Dun as affording a good basis for the training of Sub-Assistant Conservators; but he urges that it should be raised to a higher level, and the strength of the staff increased, so as to be able to teach up to the standard adopted for the instruction of the Controlling Staff in England; and, when this is done, he considers that, after reserving a fixed number of appointments in the Controlling grades for Englishmen, the rest might be thrown open to Natives, Statutory as well as Asiatic. He advocates a considerable improvement in the pay of Sub-Assistant Conservators in order that these grades may be a goal to which Rangers may aspire after long and approved service. He considers that the curriculum of the School provides all the instruction at present required for training Rangers.

The Conservator considers that Europeans, when properly trained, are the most efficient class as officers in charge of Forest Divisions. But he is also of opinion that in certain circlest, owing to peculiar local circumstances, Natives who have passed through the Dehra Dun School, and are honest and capable of managing subordinates, may well replace Europeans. He states that these circumstances exist in Berar, that, while the forests in the Melghât should for at least a generation to come be placed under the most efficient European officer that can be obtained, with a second officer of the same class in another district to succeed him, the other districts could be managed by Native officers under the orders of the Deputy Commissioner, but guided in all technical matters by the Conservator.

Colonel Van Someren adds that he has been employed in Mysore, the Punjab, and the School Circle. He desires it to be understood that his opinion respecting the employment of Natives in charge of Forest Divisions does not apply to the School Circle or the Punjab.

The Conservator is of opinion that the salaries paid to officers of the Controlling Staff are insufficient to induce Natives of India to proceed to Europe for the necessary training; but if any Native or Eurasian did so, and was in other respects qualified, he sees no reason why he should not make a thoroughly good Forest officer on his return to India. At the same time he maintains that the highest posts, those of administration, should be held only by Englishmen, as in his judgment it is right and proper as well as necessary that Englishmen should in India be at the head of all Departments.

The Conservator considers that Europeans and Eurasians, when of such character as to be able to withstand the temptations to which a life isolated from their fellows exposes them, furnish as good recruits as any other class for the Sub-Assistant Conservator's posts; but that the bulk of these appointments should be conferred on Natives who have qualified at the Dehra Dun School.

While admitting that a good European Ranger is a useful officer, he prefers trained Natives as Rangers and Foresters; but he advocates an improvement in the pay of these classes in order that really good men may be attracted to the service.

He states that in his experience the Maratha Brahmans, as a class, are not qualified for out-door Forest work, and that Kunbis are too easy-going and deficient in education; that the best Sub-Assistants, Rangers, and Foresters are recruited from men of the Punjab, Oudh, and the North-Western Provinces; and that they also make the best Forest Guards. He also speaks favorably of Berar Mahomedans.

Section II.—Notes by Departmental Members, &c.

Note by B. RIBBENTROP, Esq., *Officiating Inspector General of Forests, on the question of the admission of Natives into the Indian Forest Service.*

I am a Hanoverian by birth, and was educated for the higher Forest Service of that country. A few months after the annexation of the Kingdom of Hanover in 1866, I passed an examination into the Superior Forest Service of Prussia, but left almost immediately for India, having been selected for, and having accepted, one of the two appointments in the Indian Forest Service which were offered to German Forest Officers on the advice of the then Inspector General of Forests, now Sir Dietrich Brandis.

I arrived in the Punjab in March 1867, and was placed in charge of the Jhelum Division, comprising at that time all districts west of the river of that name. In 1870 I was in charge of the Beas Division. During 1871-72 and part of 1873 I held charge of the Plantation Division. During the following year I officiated for 6 months as Conservator of the Punjab; served on special duty connected with Working Plans, and as Assistant to the Inspector General of Forests whilst on tour in the North-Western Provinces and Oudh. In 1875 and 1876 I officiated as Conservator of Burma, was Conservator of the Pegu Circle from 1879 to 1882, and was then appointed Conservator of the Punjab. For the last 2 years and 6 months I have been officiating as Inspector General of Forests.

In recording my opinion on the organization and recruitment of the Indian Forest Service, I presuppose that it is the desire of the Government of India that the State should secure the best servants in proportion to the outlay the Government are enabled to devote from State Revenues for any special purposes of administration, and I refuse to believe in the existence of valid reasons which would make it advisable that the State should be burdened with inferior servants. I do not in any way prejudge, and have carefully weighed my experience of the services of the different classes of servants available for the Forest Department without a sentimental leaning to either class; but I cannot accept, without a direct assurance to that effect, that the Government is bound to provide employment for educated Natives because they are educated Natives. It is, in my opinion, the duty of the Government to provide the State with the best servants for each kind of work, and to pay them at such market rates as will ensure the maintenance of an efficient service. Every other consideration must land us in uncertainty and doubt.

2. The Indian Forest Service is divided into a Controlling, an Executive and a Protective Staff. The pay for the Protective Staff ranges from Rs. 6 to Rs. 40 per mensem only; it must therefore of necessity be filled by uneducated Natives, and we need give it no further consideration for the purposes of the present enquiry. The Executive Staff comprises Forest Rangers and Sub-Assistant Conservators. The pay of this Staff ranges at present between Rs. 50 to Rs. 250; and since the appointments have been made as requirements became apparent, and without that strict attention to distribution of the different grades which is necessary for a steady and equal flow of promotion, its organization is open to many objections in that respect, though it has been considerably improved of late years. At present the Executive Staff in the Provinces under the Government of India amounts to 160 officers.

I have always considered a high development of the Executive Staff necessary for a successful and at the same time economical Forest Administration, and I have just recommended a programme under which the number is to be increased in ten years to 400 Rangers and 50 Sub-Assistant Conservators, with salaries rising, in the case of the latter, according to the following scale:

10	on Rs.	400	per mensem.
10	„	350	„
10	„	300	„
10	„	250	„
10	„	200	„

My scheme, at the same time, allows for a gradual increase in the pay of Rangers from Rs. 60 to Rs. 150 per mensem; for, in my opinion, Rangers having the qualifications we now require should not draw less than Rs. 60 a month.

3. The Forest School at Dehra Dun is even now nominally, and will be practically, the sole source of supply for the whole of the Executive Staff. This will for the next ten years necessitate the annual training of 38 students for the Provinces under the Government of India; but there are always some students from Madras and from Native States; and, as the course comprises 21 months, we may count on the continuous presence of from 70 to 100 students—a number sufficiently important to warrant the maintenance of the Forest School at a high degree of efficiency.

At some future time, when the students who have passed through the Forest School have matured in the service as Rangers, I am of opinion that the Sub-Assistant Conservatorships should—if not all, yet as a rule—be filled by this class of men. This is necessary in order to make the Executive Staff in all its branches sufficiently attractive, and will induce good men to enter the Rangers' class. By

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these means, this branch of the Forest Service will be placed almost entirely at the disposal of Natives for Europeans possessing the necessary qualifications, with perhaps no families sufficiently well off to help them, will not be able to maintain themselves during the time they would draw Rs. 60 to Rs. 150 only.

As yet the number of officers of the Rangers' class who have passed through the School, and have qualified by subsequent approved service, is small, and not sufficient to meet the increase in the number of Sub-Assistant Conservators—appointments which cannot always be deferred without necessitating a more costly and immediate expansion of the Controlling Staff.

4. To meet this demand for Sub-Assistant Conservators, we must have recourse to measures resulting in a more rapid supply of this class of officers. Till now the provisions of section 38 of the Forest Department Code have served this purpose; and we have obtained by these means some very useful officers, and experienced but few failures. All officers but one, who were thus admitted into the Department, were domiciled Europeans or Eurasians; the exception was a Maratha, who is now officiating in the Controlling Staff.

The exception alluded to shows that there is nothing in the rules to prevent a Native from entering the Service in this manner; but, as far as I am aware, no other sufficiently qualified Native ever applied either to a Local Government or to the Director of the Forest School. Nevertheless, the working of the section caused a certain amount of dissatisfaction, since the selected officers had of late to pass through the School side by side with the candidates for Rangerships, who sometimes excelled them in mere book learning. I have therefore now proposed an alteration in section 38, under which an entrance examination to the Forest School would in future be required, and which would, moreover, provide that the students qualifying for direct appointments as Sub-Assistant Conservators should maintain themselves during the course of their studies, and remain six months longer at the School than in the case of Rangers, in order to study Forest Law and Land Revenue, the Forest Code, and the general principles and rules of administration. These measures will, I think, remove every ground for dissatisfaction on the part of those students who prefer being dry-nursed by Government on a small salary from the time they have passed the University Entrance Examination.

5. Experience shows that an entrance examination to the Forest School, even as regards the Rangers' class, is indispensable; for the Entrance Examination of an Indian University is no criterion of a sufficient knowledge of either English or Mathematics, such as is required for the purpose of following even the first and elementary lectures in Forestry.

An entrance examination in these two branches of knowledge has consequently been provided for in the future. The Forest School, though in full working order only for the last few years, has turned out some very efficient Range Officers and one or two men fit for higher appointments. It is a matter for regret, however, to see that a good many of the young men of pure Native extraction, who were at the School active cricketers and runners, give up their active habits after leaving that institution; and this circumstance is the more marked in the case of those who are placed in charge of timber depôts or revenue stations, under which conditions they are apt to grow fat and indisposed to hardship. It frequently happens that the ordinary educated Native does not like the monotony, dangers, and vicissitudes of a forest life. He is afraid of tigers, of fever, and misses life in town. There are, however, many exceptions in this respect, and I know a Maratha who is always well mounted and rides a good horse well across country, and who did not budge from the side of his Conservator when within easy reach of a charging tigress. This man is a good Forest Officer as well. I know of another Sub-Assistant Conservator, who is, however, not sufficiently well educated for an appointment in the Controlling Staff, but who showed a great degree of character and independence in not allowing his measurements to be disputed, taking upon himself to give the officers in charge of an express fuel train the choice of either accepting his measurements and loading, or of taking the train back empty. This officer is also a good and enduring rider. He is a Northern Mahomedan.

6. There has been a general improvement in the class of Natives we have of late years been able to draw into the Service, partly perhaps because some of our better men have obtained well paid appointments in Native States, and partly because of the considerable influence exercised by the Forest School as regards both training and recruiting. It is still, however, a matter of considerable difficulty to obtain a sufficient supply of Natives combining physically active habits, a good constitution, and strength of character with a liberal education. That they exist we have proofs, but the Executive Branch of the Service must be improved in the manner proposed by me before we can secure them as a rule and not as an exception, as is at present the case.

Exceptionally excellent service in the Executive Staff has from time to time been rewarded by translation to the Controlling Staff, and I think that this practice should be continued, though, unless officers thus selected for promotion are sent to England to complete their scientific training, they cannot be utilized for the more important positions from which such training is a question of constantly increasing importance.

7. The Controlling Staff for Forest Administration in India is numerically weak in comparison with the large extent of forests in charge of the Forest Department, and a further development of any considerable extent can on account of its cost be approached only with the greatest caution. It is for this reason that I advise the improvement and expansion of the Executive Staff.

It should be self-evident that if it is not possible to expand the Controlling Staff numerically, the greatest possible importance must be attached to the excellence of each officer. We have to train

officers who have at an early age to take charge of positions in the Forest Administration of the Empire, which in other countries, where Forestry has been long established as a separate scientific Department, are, as a rule, only filled by officers of more mature experience. The active habits, early-trained powers of observation and self-reliance of the average young Englishman give us the best material to work upon; but, in addition to this, we must secure the best possible technical training.

8. The question whether such high technical and scientific training is necessary has been asked and replied to over and over again, and I do not suppose that it is incumbent on me to repeat the arguments in favor of a state of things which has been generally admitted to be necessary, and the defence of which has been set forth at some length in Mr. Fernandez's evidence, with whom I entirely agree. No doubt we have some excellent Forest Officers who have trained and made themselves, but we can no longer wait for the survival of the fittest in the way we could afford to do some time ago.

The question which will next arise is—Why this technical training should not be given in India, so as to open the field to all children of the Empire on more equal terms?

For administrative reasons, I would object to educate officers of the Controlling and Executive Staff at one and the same technical school; and even if I considered it otherwise feasible, which I do not (as the training of 100 students for the Executive Staff absorbs the whole power of the School), I would not approve of the Dehra Forest School being developed for the purpose of including the training of officers for the Controlling Staff.

The transfer of the technical training to India would, therefore, involve the establishment of a new institution; and there can be no doubt that educational talent of the kind required is cheaper in Europe than in India. In Europe, moreover, a college such as we here want can be combined with other scientific institutions, whereas in India a complete staff of Professors would have to be maintained for the education of 8 to 12 students per annum; and if such an institution was at all to equal the German Schools for the training of Forest Officers for the Controlling Staff, we should require three Professors of Forestry, besides half-a-dozen specialists for auxiliary subjects.

I think the question of cost alone should condemn the plan of an Indian training, but there are many other reasons why it is not practicable. Forestry in India is a new departure, and we are not as yet in a position to demonstrate the truths of our theoretical teaching by easy reference to, and inspection on the ground of, forests long subject to systematic treatment and working. A Forester with European training can draw on his experience of what he has seen, and he can foresee or picture to himself the result of a certain forest treatment; but a student who has never been shown the results of long-continued scientific Forestry would have to take matters on trust. This is a very serious objection, because it would tend to make officers doubtful in regard to the results of their own operations, which they have undertaken because they had been theoretically taught. It is this very want of scientifically directed observation in reference to the results of Forestry that only too frequently makes the Civil authorities sceptical as to the wisdom or advisability of our proposals with regard to Forest Conservancy.

Next, a Forest Officer on the Controlling Staff ought to see and study sawmills, tramways, wire trams, slides, forest roads, charcoal-burning, tar manufactories, &c., &c. No doubt we have introduced most of these industries and works into India; but they are scattered over the whole Empire, and it would take a month to show students the timber slide in Chamba and the sledge-ways in Jaunsar; whereas in Europe all this can be seen in a very short time. I think I have said enough to prove, if not the necessity, at least the advisability of a European training; and, as regards a practical solution of the question, this circumstance should be sufficient.

The recruitment for the Service is open to all, and in this respect I need only state that we have both Statutory Natives of India and Natives by extraction in the Controlling Branch, both classes having been trained in Europe.

9. The successful recruitment for the Controlling Staff of the Forest Department labours at present under a serious disadvantage, which I think deserves the attention of the Public Service Commission, in so far as the officers in that branch, though selected in the same way and educated in the same College as the officers for the Public Works Department, have neither the same prospects (the average pay amounting to Rs. 635 per mensem against Rs. 696 in the Public Works Department), nor the same pension rules as obtain with the latter. This is a question which seriously affects the recruitment of the best men, and falls, I think, within the range of a Commission, whose duty I consider it to be to promulgate proposals by which to secure the most effective servants to the State.

No. 619, dated Simla, 19th August 1887.

From—The Inspector General of Forests to the Government of India,
To—The Secretary to the Public Service Commission.

In reply to your letter No. 379S. of the 2nd ultimo, I have the honor to forward a Statement, prepared in accordance with the form received therewith, showing the existing organization and constitution of the Forest Department under the Government of India.

Existing Organization and Constitution of the Forest Department under the Government of India.

1	2	3	4						
			NUMBER OF APPOINTMENTS IN EACH CLASS OR GRADE NOW HELD BY						
			1	2	3	4			
						Natives of India.			
Department.	Total number of gazetted appointments, or appointments not being purely clerical, of salaries of Rs. 100 and upwards.	Distribution of the gazetted appointments and other appointments mentioned in column 2 amongst classes and grades, with rate of pay attached to each.	Europeans not domiciled in India.	Europeans domiciled in India.	Eurasians	(a) Hindus.	(b) Mahomedans.	(c) Others.	(d) Total.
Forest Department.	1	Inspector General on Rs. 1,700—50—2,000 per mensem ...	1	...	...	...	...	...	...
	1	Assistant Inspector General and Superintendent of Working Plans on pay of grade in Provincial List, *plus* a deputation allowance of Rs. 200 per mensem	...	1	...	...	...	...	...
	12	*Conservators*—							
		1st grade—3 on Rs. 1,500 per mensem each	3	...	...	...	...	...	...
		2nd „ 4 „ „ 1,250 „ „ „	4	...	...	...	...	...	...
		3rd „ 5 „ „ 1,000 „ „ „	4	...	...	...	...	...	...
	69	*Deputy Conservators*—							
		1st grade—10 on Rs. 900 per mensem each	9	1	...	...	...	...	...
		2nd „ 13 „ „ 800 „ „ „	7	2	...	...	...	...	...
		3rd „ 23 „ „ 650 „ „ „	19	1	...	...	...	...	...
		4th „ 23 „ „ 550 „ „ „	14	7	...	...	...	...	...
	44	*Assistant Conservators*—							
		1st grade—23 on Rs. 450 per mensem each	16	1	...	...	...	...	...
		2nd and 3rd grades—21 on an average of Rs. 317 per mensem each	16	5	2	...	...	...	...
	2	*Special Appointments*—							
		Deputy Director of the Forest School, Dehra Dun, on Rs. 700—40—900 per mensem	1	...	...	...	...	...	...
		Instructor at the Forest School, Dehra Dun, on Rs. 600—40—800 per mensem	1	...	...	...	...	...	...
	36	*Sub-Assistant Conservators*—							
		1st grade—5 on Rs. 250 per mensem each	...	1	...	1	...	...	1
		2nd „ 21 „ „ 200 „ „ „	...	3	1	6	3	...	9
		3rd „ 10 „ „ 150 „ „ „	...	5	1	6	2	...	8
	There is no fixed number of these appointments for all the Provinces. Each Province makes its own arrangements within a sanctioned maximum of expenditure.	*Rangers*—							
		On Rs. 150 per mensem	...	2	...	...	...	2 (Burmans)	2
		„ „ 125 „ „	...	...	...	...	1	...	1
		„ „ 120 „ „	...	...	...	1	...	2 (Burmans)	3
		„ „ 100 „ „	...	...	2	4	1	1 (Burman)	6
			95	29	6	18	7	5	30

Note by A. L. Holmes, Esq., Conservator, Departmental Member, Bengal.

I.—The present regulations of the Department as to admission to the various grades and ranks of which it is composed and to promotion therein, or, if no such regulations exist, a statement of the principles by which the departmental or other authority invested with the duty is guided in making first appointments to, or promotion in, the Department.

(*a*) These regulations are printed in full detail in Chapter I of the Forest Department Code, 3rd edition, and may be briefly summarized as follows:

(*b*) The staff of the Forest Department is divided into—

(i) The Controlling Staff.
(ii) The Executive Staff.
(iii) The Protective Staff.
(iv) The Office Staff.

The Controlling Staff consists of—

Conservators ... ... } Chief Forest Officers of Provinces or parts of Provinces (Circles).

Deputy Conservators ... ... } Officers in charge of Forest Divisions.
Assistant Conservators, 1st grade ... }

Assistant Conservators, 2nd and 3rd grade—Officers in charge of Forest Sub-Divisions.

This distribution of charges according to rank of officers is not strictly adhered to; officers are posted according to their capacity for work or to the existing number in each grade present on duty; and in this manner there are now Deputy Conservators in charge of Sub-Divisions in some cases and Assistant Conservators in charge of Divisions.

The Executive Staff comprises:—

Sub-Assistant Conservators ... ... } Officers in charge of Ranges.
Forest Rangers ... ... }

Sub-Assistant Conservators are, as a fact, in charge of Sub-Divisions in Bengal owing to the number of Assistant Conservators being insufficient.

The Protective Staff includes:—

Foresters ... ... } in charge of Beats.
Forest Guards ... ... }

In Bengal Foresters are, as a rule, in charge of Ranges, there being no Forest Rangers available for more than a very few of the Ranges into which the Forests are divided for administrative and executive purposes.

(*c*) The conditions of admission to the Controlling Staff are—

1st.—Under covenant with Her Majesty's Secretary of State for India, to candidates who have received a professional training, either under the regulations which may from time to time be laid down by Her Majesty's Secretary of State, or in such other manner as may be approved by him.

2nd.—In so far as the candidates mentioned in the 1st clause are not sufficient to fill existing vacancies, under the orders of the Governor General in Council, to Sub-Assistant Conservators of special merit and of not less than 5 years' service in that class.

(*d*) The conditions of promotion in the Controlling Staff are—

Assistant Conservators, 3rd grade to 2nd grade, by Local Governments, irrespective of the numbers in each grade, on passing in the vernacular by the lower standard and obtaining a certificate from the Conservator of fitness to hold charge of a Forest Range.

Assistant Conservators, 2nd grade to 1st grade, by Local Governments, on a vacancy in the grade occurring, on passing in the same vernacular by the higher standard, or in another by the lower, in Forest Law and in the Land Revenue system of his Province, and obtaining a certificate from the Conservator of fitness to hold charge of a Forest Division.

Assistant Conservators, 1st grade, to Deputy Conservator, 4th grade, by Local Governments, on a vacancy in the grade occurring, according to priority in passing the prescribed examinations for promotions in the class of Assistant Conservators.

Deputy Conservators, from the 4th to the 3rd, and 3rd to 2nd grades, by Local Governments, according to the practical efficiency that officers have shown in the discharge of their duties.

Deputy Conservators, 2nd to 1st grade, and Deputy Conservators of any grade to the class of Conservators, also Conservators from grade to grade, by the Government of India, by selection.

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(e) The conditions of admission to the Executive Staff are—

1st.—Forest Rangers:

(i) Candidates (Foresters) or others who have obtained the Ranger's certificate at the Forest School, Dehra Dun.
(ii) Candidates (Foresters or others) who have obtained the Forester's certificate at the Forest School, Dehra Dun, and who have afterwards rendered not less than two years' satisfactory service as Foresters.

} By Conservators.

(iii) Subordinates who have earned such promotion by faithful and meritorious service, and Native Non-Commissioned Officers of Her Majesty's Army who have entered the Department under the orders contained in the Government of India Resolution No. 25F., dated 13th November 1880, which prescribes the method of their selection and their attending the course at the Forest School, Dehra Dun.

} By Local Governments.

2nd.—Sub-Assistant Conservators:

(i) By the promotion by Local Governments of Forest Rangers who have received the Ranger's certificate at the Dehra Dun Forest School, and who have rendered not less than five years' satisfactory service as Forest Rangers.

(ii) By the promotion by the Local Governments of Forest Rangers who were members of the Department before 1st December 1881, who have not obtained the Ranger's certificate at the Dehra Dun Forest School, but have done specially good service, including five years as Forest Ranger.

(iii) By the appointment on probation for not less than two years, with the previous sanction of the Government of India, of applicants, between the ages of 18 and 25, who are not in the Forest Service, who are deemed by the Conservator likely to make useful Forest Officers, and can produce the following papers:

(1) A statement of their names and parentage, and a birth certificate or other satisfactory evidence of their age.

(2) A medical certificate of good health and constitution, including good eyesight and hearing, signed by a Presidency Surgeon or the Civil Surgeon of the station nearest to their place of residence.

(3) A certificate of having passed the First Arts Examination at one of the Indian Universities on the English side, or such other examination of an equal standard as the Conservator or the Director of the Forest School may consider sufficient.

(4) A certificate of having passed the examination in one of the principal languages of the Province by the lower standard.

(5) A certificate of qualification in surveying by the lower standard, as laid down in section 52 of this Code.

Conservators are prohibited from forwarding the applications of candidates who have not complied with all the conditions as prescribed.

Section 52 (referred to above).

52. There will be two standards of qualification in surveying—the "lower" and the "higher."

The examination by the lower standard will be as follows:

(i) A circuit round an area of not less than two square miles of flat country to be traversed with a prismatic compass and chain, the bearings, distances, and offsets to be recorded in a field-book, and to be plotted on a scale of not less than 8 inches = 1 mile. The roads, paths, streams, houses, and other topographical features to be filled in by plane-table and chain. If the officer conducting the examination certifies that no plane-table is available, the interior detail should be filled in by prismatic compass and chain.

(ii) A line not less than one mile in length to be levelled throughout from both ends, and the sections to be afterwards plotted on a scale of 8 inches = 1 mile for horizontal distances, and not less than 20 feet = 1 inch for vertical distances.

(iii) Calculation of areas from maps.

Whenever possible, the examination will be conducted by the Superintendent of Forest Surveys. Officers who cannot present themselves for examination before him may be examined by an officer of the Public Works Department not under the rank of an Executive Engineer, or by an officer of the Survey Department not under the rank of a Deputy Superintendent; and in this case the examining officer will forward the map and field-book to the Superintendent of Forest Surveys, with a certificate that the work is *bonâ fide* that of the officer under examination, and that it has been done under the examiner's supervision. He will also certify that the candidate is able to calculate areas from maps.

The Superintendent of Forest Surveys will, if he considers these documents satisfactory, grant a certificate, and will send it, as well as the map and field-book, with his remarks, to the Conservator concerned.

Officers who may be possessed of greater skill than is required by the conditions for the lower standard may be permitted to show it by the addition of hill-shading or the survey of a piece of intricate or mountainous country.

Probationers so appointed are ordinarily deputed to the Dehra Dun Forest School for a two years' course of instruction. At the close of the period of probation, they may, if they have given satisfaction, be confirmed by Local Government.

(f) Promotions in the Executive Staff are regulated by the services rendered by individuals as recorded in their service-books or specially reported by the Controlling Officers under whom they are serving; they are made as follows:—

Forest Rangers, from grade to grade	By Conservators.
Forest Rangers to the class of Sub-Assistant Conservators ...	By Local Governments.
Sub-Assistant Conservators, from grade to grade ...	By Local Governments.

(g) The conditions for admission to the Protective Staff are not specially regulated by any Government order. Those required in Bengal by the Conservator for candidates for Forestership are that they are eligible under Appendix I of the Forest Department Code, 3rd edition (Memorandum of conditions for the admission and training of Students at the Forest School, Dehra Dun, dated 3rd June 1884), for admission to the Forest School with the view to obtaining a Ranger's certificate. The conditions are —

Age, 18 to 25; medical certificate of fitness, good moral character, active habits, fair power of observation and sense of locality; certificate of having passed the Entrance Examination of an Indian University on the English side.

These conditions apply to applicants for Forester's posts in the Forests, but not necessarily in the case of timber depôt or revenue collecting appointments, such as those in the Sunderbans and Chittagong Divisions, where the duties are of a simple and sedentary nature, and where the chief qualifications desirable are a fair knowledge of English, a good moral character, aptitude for accounts, and ability to furnish security.

In order to be fully satisfied as to the candidate's fitness in the above respects, all appointments to the class of Foresters are made on probation for three months, which term is extended when necessary. Forest appointments are generally made to the 3rd or 4th grade of Foresters on Rs. 25 or Rs. 20 per mensem.

Forest Guards are appointed by Divisional Officers, and the fitness of candidates is similarly tested by trial on probation; the qualifications required are chiefly physical.

(h) Promotion in the Protective Staff are regulated as in the case of the Executive Staff; they are made:—

Forest Guards, from grade to grade	By Divisional Officers.
Forest Guards to the class of Foresters ...	By the Conservator.
Foresters, from grade to grade ...	By the Conservator.

II.—The conditions of service in the Department in regard to pay, pension, and furlough.

(*a*) As regards pay, the Department is graded as follows:

Designation.	Grade.	Monthly pay.
Class.		Rs.
Conservators	1st ...	1,500
	2nd ...	1,250
	3rd ...	1,000
Deputy Conservators	1st ...	900
	2nd ...	800
	3rd ...	650
	4th ...	550
Assistant Conservators	1st ...	450
	2nd ...	350
	3rd ...	250
Sub-Assistant Conservators	1st ...	250
	2nd ...	200
	3rd ...	150
	Probation ...	100 to 200

Designation.		Grade.	Monthly pay.
Class.			Rs.
Forest Rangers	... ...	1st ...	120
	... ...	2nd ...	100
	... ...	3rd ...	80
	... ...	4th ...	60
	... ...	5th ...	50
Foresters	... ...	1st ...	40
	... ...	2nd ...	30
	... ...	3rd ...	25
	... ...	4th ...	20
Forest Guards	... ...	.....	4 to 12

The conditions of appointment to, and promotion in, the several classes and grades have been noted as above.

(*d*) As regards pension :

Officers appointed to the Departments in England by Her Majesty's Secretary of State are granted special concessions as laid down in the Civil Pension Code, 6th edition, sections 67, 96, and 114.

Other officers in the Department come under the general rules of Chapter IX of the Civil Pension Code.

(*e*) As regards furlough :

Officers appointed to the Department in England by Her Majesty's Secretary of State to be Assistant Conservators, and certain officers named in Schedule A of the Civil Leave Code, are allowed furlough under the rules of Chapter V of that Code.

Other officers in the Department come under Chapter X of that Code.

III.—The technical requirements of the Department and the professional attainments essential for efficient service in its various branches.

(*a*) The unit of an Executive Forest charge is a Range, and a collection of Ranges forms a Division. The officer in charge of a Range is the Executive Officer, usually either a Sub-Assistant Conservator or a Forest Ranger ; and the principal duties of such an officer are—

The protection of his Forests from the action of man, for which purpose he has a Protective Staff to assist him, and exercises practically the powers of a Police Officer in his own Forests.

Their protection against fire.

The supply of the public with forest produce, which necessitates the selection by him of trees, &c., to be felled, and the collection of moneys in payment for the same ; the execution of road works, and the erection of buildings within his charge.

The execution of works for the improvement of the forests under his charge, such as creeper-cutting, thinnings, and coppicing, &c., and the management and care of plantations.

(*b*) In order to fit them for these duties, members of the Executive Staff are required, as above explained, to have gone through the course of training at the Forest School, Dehra Dun, which includes the following subjects :

Forestry (which includes Sylviculture as well as the general principles on which Forest estates are worked).

The elements of Botany and Physical Science.

Forest protection.

Law.

Mathematics, surveying and plan drawing.

Road-making and building.

In addition to the above educational acquirements, it is essential that Executive Officers should be men of strong physique, strict integrity, and ready resource, and that they should have a liking for roughing it away from towns and civilization generally. In the course of their duties, they are frequently brought in contact with European planters, and their usefulness to the Department greatly depends on their tact and firmness.

(*c*) Officers of the Controlling Staff have to supervise and instruct the Executive Officers in the above works, and in addition have to draw up plans for the efficient and economical working of their Forests, and therefore require a thorough knowledge of Sylviculture and the preparation and execution of working plans ; and with this object for the last 17 years the majority of the Controlling Staff have

been trained at the Forest Colleges in Germany and France in forests that have been systematically worked for years.

IV.—The classes of the community who seek to be employed in the Department, and the comparative capacity of each for rendering efficient service therein.

The greater number of applications for employment are from Hindus. On a reference to my register of applicants, I find that during the current official year 13 Hindus, 1 Eurasian, and 1 Mahomedan have applied for employment. The name of the Mahomedan (Yawar Hossein) had to be struck out, as on a refefence to the Director of the Forest School at Dehra Dun it transpired that he had falsified his maps at an examination at the School. So far as my experience goes, I find one class of the community as good as another; I could not name one as up to the standard required in a really efficient member of the Executive Staff, and I have never found a Bengali yet who had an actual liking for the work of a Forest Ranger or Forester in Ranges away from the vicinity of villages and towns. Babu Sridhur Chuckerbutty, Sub-Assistant Conservator, is the only Bengali in the Service who has in my opinion conscientiously combated with his prejudice against forest life and done his duty in the several capacities in which he has been employed to the best of his ability.

Existing Organization and Constitution of the Forest Department in Bengal.

1	2	3	4						
			NUMBER OF APPOINTMENTS IN EACH CLASS OR GRADE NOW HELD BY						
			1	2	3	4			
						Natives of India.			
Department.	Total number of gazetted appointments, or of appointments not being purely clerical, of salaries of Rs. 100 or upwards.	Distribution of the gazetted appointments and the other appointments mentioned in column 2 amongst class and grades, with rate of pay attached to each.	Europeans not domiciled in India.	Europeans domiciled in India.	Eurasians.	(a) Hindus.	(b) Mahomedans.	(c) Others.	(d) Total.
		Conservators. Rs.							
		1st grade 1,500	...	...	...	...	...	...	...
		2nd ,, ... 1,250	...	...	...	...	...	...	...
		3rd ,, ... 1,000	1	...	...	...	...	...	...
		Deputy Conservators.							
		1st grade 900	1	...	...	...	...	...	...
		2nd ,, ... 800	1	...	...	...	...	...	...
		3rd ,, ... 650	2	...	...	...	...	...	...
Forest Department	19 (Actual sanction 20; one post of Assistant Conservator vacant.)	4th ,, ... 550	4	...	...	...	...	...	...
		Assistant Conservators.							
		1st grade 450	1	...	...	...	...	...	...
		2nd ,, ... 350	...	...	...	...	...	...	...
		3rd ,, ... 250	1	...	...	...	...	...	...
		Sub-Assistant Conservators.							
		1st grade 250	1	...	...	...	...	...	...
		2nd ,, ... 200	...	...	...	...	...	...	...
		3rd ,, ... 150	...	...	...	1	2	...	...
		Probationers 100	...	...	...	3	...	...	...
Total number of gazetted appointments ...	19		19	...	...	4	2	...	2

Statement shewing the distribution in area of Reserved and Protected Forests in Bengal according to Divisions or Sub-Divisions and Ranges.

Divisions and Sub-Divisions.	Area in square miles.	Number of Ranges.	Average square miles per Range.	Remarks.
RESERVED AND PROTECTED FORESTS.				
Darjeeling—				
Darjeeling Sub-Division (Hills) ...	102	5	20·4	Reserved.
Teesta „ („) ...	250	4	62·5	„
Kurseong „ (Hills and Terai)...	87	6	14·5	„
Julpaiguri „ (Plains and Terai)...	185	4	46·25	„
Buxa „ („ „)...	265	3	88·33	„
Chota Nagpur—				
Talmow Sub-Division (Plains) ...	188	5	37·6	„
Hazaribagh „ („) ...	47	1	47	„
Singbhum „ („) ...	523	4	130·75	„
Sunderbans (Rivers and Islands) ...	1,581	3	527	„
	1,942	4	488	Protected.
Chittagong (Hill Tracts) ...	1,385	5	277	Reserved.
Orissa—				
Angul Sub-Division (Plains) ...	280	3	93·33	„
Khorda „ („) ...	79	4	89	„
	277			Protected.
	7,191	51	141	

There are also 4,034 square miles of District Forests under the management of this Department in the Chittagong Hill Tracts for the collection of revenue only.

CALCUTTA ;
The 31st March 1887.

A. L. HOME,
Conservator of Forests, Bengal.

Conditions of the Examination in England for the Forest Service in India.

1. An examination will be held in June 1887, when not less than ten probationers, *if so many be found duly qualified*, will be selected to undergo a special training to qualify them for admission to the Forest Service of India.

2. An applicant must be a natural-born British subject, and must be above 17 and under 21 years of age on the 1st of June 1887. He must be unmarried; and if he marries before leaving this country for India, he will forfeit his appointment.

3. Any person desirous of competing at this examination must send to the Revenue Department of the India Office, on or before the 1st day of May 1887,—

(*a*) His name and parentage, a certificate or other satisfactory evidence of the date of his birth, and a statement of consent from parent or guardian.

(*b*) A statement of the places of education at which he may have been since he was nine years old, accompanied by testimonials of good conduct during the last two years. He must also pay a fee of £4, by means of a special stamp, according to instructions which will be communicated to candidates.

4. Applicants will have to appear before a Medical Board* at the India Office at a date to be hereafter named. Particular stress will be laid upon good vision and hearing, and means will be taken to test physical powers of endurance, so as to ensure the selection of persons of active habits and sound constitution.

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* With a view to prevent parents and guardians from incurring the inconvenience and expense of preparing candidates who may be physically unfit for the Forest Service, it is suggested that candidates be submitted to examination by the medical adviser of the family or any other qualified medical practitioners with regard to the following points :—

(1) A weak constitution.
(2) Defective vision.
(3) Impaired hearing
(4) The existence of any congenital defect.

It is to be understood that this private examination is merely suggested to lessen the chances of disappointment, and that it is by no means intended to take the place of, or to influence in any way, the official examination.

On the subject of the standard of eyesight required for the Indian Services, a pamphlet has been published, under the authority of the Secretary of State in Council, by Messrs. Churchill & Sons, 11, New Burlington Street.

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5. The subjects of examination and the marks assigned thereto are detailed in the following table:

	Maximum.	Minimum.
(1) Orthography	300	150
(2) Handwriting	200	100
(3) English Composition	200	67
(4) Intelligence	100	...
(5) Arithmetic, in all its branches	300	100
(6) Geometry, including 1st to 4th and 6th Books of Euclid	300	100
(7) Algebra, up to and including Binomial Theorem, Arithmetical and Geometrical Series, Interest and Annuities	300	100
(8) Logarithms, including use of Tables	100	33
(9) Plane Trigonometry, up to and including Solution of Plane Triangles, and Calculation of Heights and Distances	300	100
(10) Mensuration	100	33
(11) Elements of Mechanics	300	75
(12) Elements of Physics, omitting Electricity and Magnetism	300	75
(13) Inorganic Chemistry	400	133
(14) Mechanical drawing of Geometrical Figures (limited to the drawing of Plane Figures)	400	80
(15) Elements of Botany	400	100
(16) French or German { Translation	200	67
(16) French or German { Oral	200	33

6. The above subjects are compulsory; but, in addition thereto, the annexed marks may be obtained in the following optional subjects:

Translation into French or German, the language being the same as that taken up under the compulsory subjects	100
Freehand drawing	300
Elements of Geology and Mineralogy	300

7. From those competitors who attain an amount of marks not less than the minimum, and satisfy the requisite conditions in other respects, the Secretary of State will select those whom he may deem best adapted to the Service.

8. The candidates so selected will undergo a course of training extending over 2 years and 2 months. During the first 22 months, commencing with the annual session which begins in September 1887, they will prosecute their studies at Cooper's Hill College, where arrangements have been made for instruction in Forestry and in the necessary auxiliary Sciences. During the last 4 months the candidates will be instructed, under suitable supervision, in such English or Continental Forests as may be selected for the purpose. Short tours will also be made during part of the College vacations. The entire expense of the tours and of the practical instructions will be defrayed by the Secretary of State for India in Council.

9. An annual charge of £180 is made for each student, which must be paid in advance to the Bank of England in three sums of £60 per term, the total charge being £360. Receivable orders, with full directions as to the mode of payment, will be forwarded from the India Office, shortly before the fees fall due, to the parents or guardians of the students.

10. A deposit of £5 is required to be paid by each student on admission to the College as caution money to cover charges incurred by him for damage to books, instruments, &c., or any College bills outstanding on leaving the College, when the balance standing at his credit will be repaid. This deposit is to be paid with the fee for the first term, making the total payment on that occasion £65.

11. The College fees include all charges for tuition, board, according to the College tariff, and lodging, with washing, but not for medical attendance. Students are required to provide their own class books and drawing instruments. Drawing paper, drawing boards, and surveying instruments are provided by the College.

12. Every student will be required to conform to the College rules, to exhibit due diligence in his studies throughout his course, and to give evidence of satisfactory progress, failing which, or in the event of serious personal misconduct, he will not be allowed to remain at the College.

13. The rules regarding the course of study and other matters may be learnt from the College prospectus.

14. Every student, before proceeding to India, will be required to furnish to the President satisfactory evidence of his competency in riding.

15. During the course of training, the proficiency of the students will be tested by periodical examinations, and on the termination of their studies there will be a final examination, when, in the event of the results being satisfactory, and provided the Medical Board give a favorable certificate as to health, candidates will be nominated Junior Assistant Conservators in the Forest Department in India, their seniority being regulated by the result of all the above examinations combined.

16. Within a month of his nomination as Junior Assistant, each nominee must sign Articles of Agreement describing the terms and conditions of his appointment. He must embark for India when required to do so by the Secretary of State, who will provide for the expenses of his passage. Failure to embark at the stated time will lead to forfeiture of appointment.

17. The pay, &c., of the Forest Service may be gathered from the following table; it must, however, be clearly understood that the allowances vary in different Presidencies, and are liable to revision:—

	Per mensem. Rs. Rs.
Inspector General of Forests	1,700 to 2,000
Conservators of Forests	1st grade, 1,500 2nd „ 1,250 3rd „ 1,000
Deputy Conservators of Forests	1st grade, 900 2nd „ 800 3rd „ 650 4th „ 550
Assistant Conservators of Forests	1st grade, 450 2nd „ 350 3rd „ 250

18. The pay of a Junior Assistant Conservator (Rs. 250 per mensem) will commence from the date of arrival in India.

19. The young officer will be required to report himself to the Government of India (or to the Government of Bombay or Madras, in case he should be sent to one of these Presidencies), or to such Local Government as may be specified, and he will then be posted to such place as the Service may require.

20. Promotion, leave, and pension will be regulated by the rules for the time being; but an officer will not be eligible for promotion or increase of pay until he has passed an examination in such Native language as the authorities may prescribe.

Revised Rules regarding the appointment, promotion, &c., of Officers of the Forest Department.

I.—The present rules refer to Conservators, Deputy and Assistant Conservators, and to officers holding special appointments, but taking rank as Deputy Conservators.

II.—The class of Assistant Conservators is recruited chiefly by the appointment by the Secretary of State of candidates who, after having passed the Entrance Examination held annually at the India Office, have successfully completed the prescribed course of professional training.

Vacancies that may arise in the class of Assistant Conservators should be reported by Local Governments for the orders of the Government of India, with proposals for filling them, either by posting to their Province trained officers expected from home, or by the promotion of deserving Sub-Assistant Conservators.

III.—Assistant Conservators will, as a rule, be appointed to the 3rd grade, and they will be eligible for promotion successively to the 2nd and 1st grades on their passing the prescribed examinations, and obtaining the needful certificate of qualification from the Conservator.

Promotion, as far as vacancies permit, will not necessarily be given immediately on passing the examinations: the merits and qualifications of each officer will also be taken into consideration.

IV.—Tests and qualifications requried for promotion in the grades of Assistant Conservators are as follow:

Before promotion to the 2nd grade of Assistant Conservators, an officer must have passed the examination in a "principal" language of his Province by the lower standard, as prescribed by the rules in force for the time being, and must have obtained a certificate from the Conservator of Forests that he is competent to hold charge of a Forest Range.

Before promotion to the 1st grade of Assistant Conservators, an officer must have passed the examinations in a "principal" language of his Province by the higher standard, in the elements of Law, and the Land Revenue system of his Province, as prescribed by the rules in force for the time being; and he must have obtained a certificate from the Conservator of Forests in his Province that he is competent to hold charge of a Forest Division.

In the Provinces in which two languages are "principal," an officer who has passed in both languages by the lower standard, and an officer who has passed by the lower standard in two languages, each being a "principal" language of a different Province in which he has served, will, if otherwise qualified, be eligible for promotion to the 1st grade of Assistant Conservators without being required to pass in any language by the higher standard.

In British Burma an officer who has passed by the lower standard in Burmese, and has also passed the examination in the Karen language, will be eligible for promotion in the same way.

The certificates of qualification for promotion to the higher grades of Assistant Conservators shall be in the following forms:

(1) "I certify that Mr. A. B., Assistant Conservator of Forests of the 3rd grade (or 2nd grade), has passed the prescribed examination for the lower standard (or the higher standard) in the * language (and in the elements of Law and of the Land Revenue system of (*f*)."

* Here enter the language or languages in which the officer has passed

(*f*) Here enter the name of the Province.

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(2) "I certify that I consider Mr. A. B., Assistant Conservator of Forests of the 3rd grade (or 2nd grade), fully competent to hold charge of a Forest Range (or a Forest Division)."

The Conservator of Forests may grant the second of the certificates as soon as he considers an officer fit to hold charge of a Forest Range (or a Forest Division), even although such officer may not have then passed in the vernacular, in the elements of Law, or in the Land Revenue system of the Province.

In the case of Assistant Conservators who are Natives of India, it will rest with Local Governments to lay down rules regarding the qualification in languages to be required for their promotion to the 1st and 2nd grades of Assistant Conservators in lieu of those laid down in this paragraph.

V.—As the numbers in the 2nd and 3rd grades of Assistant Conservators are not fixed, officers may be promoted substantively from the 3rd to the 2nd grade on qualifying, irrespective of the numbers in each of the two grades; but no officiating promotions will be made to the 2nd grade of Assistant Conservators. Promotions beyond the 2nd grade of Assistant Conservators will be regulated by vacancies.

VI.—Promotion from the 3rd grade of Assistant Conservators, up to and including the 2nd grade of Deputy Conservators, whether permanent on temporary, will be made by Local Governments. In the case of officers on the Bengal-Assam list, such promotions will be made by the Lieutenant-Governor of Bengal, in consultation with the Chief Commissioner of Assam. Similar promotions in the Central Provinces-Berar list will be made by the Chief Commissioner of the Central Provinces, in consultation with the Resident at Hyderabad. Should any difference in opinion arise as to the promotions to be made, the case should be reported for the decision of the Government of India.

VII.—Promotions from the 2nd grade to the 1st grade of Deputy Conservators, the appointment and promotion of Conservators, and the appointment or promotion of the six special officers, whether permanent or temporary, will be made by the Government of India.

To enable the Government of India to select officers for promotion in these cases, Local Governments should submit, immediately after the annual progress report of the Forest Department has been reviewed by them, the names of any officers whom they may consider deserving of advancement.

VIII.—In the absence of properly qualified officers in the higher grades, junior officers will be eligible for promotion. Promotion will not be given, and cannot under any circumstances be claimed on ground of seniority alone.

IX.—An officer officiating in a class divided into grades will officiate in, and be entitled to the pay of, the lowest of such grades, unless it be otherwise specially ordered with the sanction of the Government of India.

An officer officiating in a grade of the same class as, and immediately above his own, is entitled to the pay of that grade.

X.—An officiating officer in any case not provided for by Rule IX will be entitled to an acting allowance of one-fifth of the pay of the grade in which he officiates, or to such other allowance as may be specially fixed by the Government of India.

XI.—In cases of misconduct, Local Governments may reduce Deputy Conservators to the class of Assistants, and Assistants or Deputy Conservators to a lower grade in the same class. The reduction of Conservators and officers holding any of the six special appointments to a lower grade or class, and the removal of Conservators and Deputy or Assistant Conservators from the staff, will rest with the Government of India.

XII.—When an officer is reduced to a lower class or grade, his name will, as a rule, be placed at the bottom of the list of officers of that grade; but should the Local Government under whom the officer is serving desire in any special case that the officer degraded be placed in any other position in the lower grade, the fact should be stated in the order reducing the officer.

XIII.—The Government of India alone has the power of accepting the resignation of a Conservator or of a Deputy or Assistant Conservator.

XIV.—Transfers from one Province to another will only be made in exceptional cases, but the Government of India reserves to itself the right of transferring officers from one Province to another for the benefit of the public service or on grounds of health. When an officer is transferred from one Province to another at his own request, such transfer will ordinarily carry with it the condition that his name shall be placed in the list of his new Province at the bottom of the grade or class to which he belongs.

XV.—Postings and transfers of officers within a Province will be made by Local Governments.

XVI.—Leave of absence may be granted by Local Governments to officers of the Forest Department under the rules applicable to the branch of the Service to which such officers belong. In dealing with applications for leave, Local Governments will, in granting leave, take into consideration the fact that the staff now allotted to each Province cannot, as a rule, be augmented by the Government of India in order to provide substitutes for officers on leave.

XVII.—The fact and date of retirement of officers in all grades should be specially reported to the Government of India; and that Government should also be furnished promptly and regularly with copies of all notifications issued by all Local Governments which refer to the promotion or reduction of officers, whether permanent or temporary, or of the grant of leave.

Memorandum of Conditions for the admission and training of Students at the Forest School, Dehra Dun,— dated 30th May 1887.

Instruction at the Forest School, Dehra Dun, is given in two courses—one in English, for candidates for the Rangers' certificate; the other in Hindustani, for candidates for the Foresters' certificate.

2. There are three classes of students admitted to the Forest School—

(1) Government students.
(2) Students from Native States.
(3) Private students.

Government Students.

3. Candidates who desire to be received at the Forest School as Government students will be selected by the Director of the School or by Conservators of Forests acting under such orders as may from time to time be given by the Local Government or Administration under which they are serving. Such candidates generally receive stipends at various rates from their Local Governments.

4. Students must, on admission to the School, be not less than 18 or more than 25 years of age. Exceptions to this rule require the previous sanction of the Government of India. Each candidate will be required to furnish a certificate of sound health, good vision and hearing from the Civil Surgeon of the station nearest to his place of residence.

5. It is the duty of the Conservator or the Director of the School to satisfy himself that the candidates have a good moral character, active habits, fair powers of observation, sense of locality, and such other qualifications as are necessary for an officer of the Executive Staff of the Forest Department.

6. As a rule, no student will be received at the Forest School who has not proved his fitness for Forest work by service in the Subordinate Staff of the Department, whether permanent or temporary, during a period of not less than twelve months.

7. Candidates for admission to the Rangers' course must pass before the officers of the School, or before the Conservator (or such officer as the Local Government may appoint to assist him) an examination in the following subjects:—

English—Composition and conversation.
Arithmetic.
Algebra—up to and including Quadratic Equations.
Elementary Geometry.
Mensuration—lengths, area, and volume.

The examination papers will be sent by the Director on the 1st June in each year to Conservators and to the Forest Officers of Coorg and Ajmere, who will arrange for the examination of candidates of their own Circles.

The examination will be held simultaneously all over India on a date to be fixed by the Director.

8. Candidates for the Foresters' certificate must have passed the Middle Class Examination in the North-Western Provinces and Oudh, or an equivalent standard in other Provinces, and must possess a competent knowledge of Urdu or Hindi.

Prospects for Government Students.

9. Holders of the Rangers' certificate may, in case of vacancies arising on return to their Province or Circle, be appointed to the class of Ranger, and, after five years' approved service as Ranger, are eligible for promotion to Sub-Assistant Conservatorships.

10. The Foresters' certificate does not qualify the holders for the appointment of Ranger, but they may be promoted to this grade after not less than two years' specially good service as Foresters from the time of their leaving the school.

11. No person who has not qualified in the manner prescribed in Rules 9 and 10 can be appointed a Ranger without the special sanction in each case of the Local Government.*

Students from Native States.

12. Candidates from Native States should apply to the Director or to a Conservator of Forests, and the conditions of entry will be similar to those in Rules 4 to 8. As regards Rule 6, it will be advisable to depute the candidate for one year's practical work to any Conservator of Forests under the Government of India prior to his joining the School.

Private Students.

13. Private students should apply for nomination to the School to the Director or to any Government Conservator, and will otherwise comply with the rules for candidates from Native States.

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* NOTE.—Under the Government of India, the pay of Foresters is from ... Rs. 15 to Rs. 40 per mensem.
Ditto ditto Rangers from ... „ 50 to „ 120 „ „
Ditto ditto Sub-Assistant Conservators from „ 150 to „ 250 „ „

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14. Private students will defray their own expenses, inclusive of travelling and books, during their entire stay at the School.*

15. Every private student will deposit an imprest of Rs. 20 with the Director as caution money for purchase of books, breakages, &c., and this sum will be returned to him when he leaves the School.

All private students will also pay monthly, in advance, such a sum to the Director as may, in his opinion, suffice to cover the cost of their living at Dehra.

General.

16. Candidates selected for admission to the School will join at Dehra Dun on the 25th June of each year.

17. The course of training for the Rangers' certificate will extend over 20½ months, and that for the Foresters' certificate over 18 months. The course is distributed as follows:—

July—November	Dehra
November—22nd December	In forests.
23rd December—5th January...	Vacation.
6th January—31st May	In forests.
June	Vacation.

18. With the sanction of Local Governments or Darbars, the Director may retain students who have failed to qualify from April to June, when they will be re-examined for certificates, or remand them for another year's instruction.

19. During the course of instruction, the Director will furnish Conservators or Darbars of Native States deputing students with monthly reports on the application and progress of the students sent by them to the School.

The Director has power to dismiss any student for misconduct; and a student thus dismissed will not be re-admitted to the School. The Director may also remand to his Province, or Circle, or State any student who, in his opinion, is not sufficiently promising.

20. Successful students will, at the close of the course of instruction, receive a Ranger's or Forester's certificate. Students of special merit may be granted certificates with honors. Students of the Rangers' class, who fail to obtain the Rangers' certificate, may be granted the Foresters' certificate.

Note by C. Bagshawe, Esq., Conservator, Departmental Member, North-Western Provinces and Oudh.

I.—The present Regulations of the Department as to admission to the various grades and ranks of which it is composed and to promotion therein.

The staff of the Department is divided into—

(1) The Controlling Staff.	(3) The Protective Staff.
(2) The Executive Staff.	(4) The Office Staff.

(Chapter I, Section 6, Forest Code, 3rd Edition.)

(1) *The Controlling Staff.*

Of these four divisions, the first, or "The Controlling Staff," comprises the superior posts.

In it the salaries, as will be shown lower down, range from Rs. 250 to Rs. 1,500 a month; to it the sole entrance, subject to an exception, which will be subsequently noted, is through appointment in England by the Secretary of State; and in it the officers form a graded service, entering at the bottom of the list, and rising to the higher grades and classes through seniority and merit. Appointments by the Secretary of State are made on the results of an open qualifying examination, which is open to all natural-born British subjects between the age of 17 and 21. The scope of the examination and the character of the two years' subsequent training at Cooper's Hill College are described in annexure A.

The exception to this system of appointment to the Controlling Staff may now be noted. If the number of young officers sent out by the Secretary of State is insufficient at any time to meet the vacancies in the class of Assistant Conservators (the lowest class in the Superior Service), the Government of India will appoint, on the recommendation of the Local Government in whose cadre the

* With economy, for Natives of India, living in the ordinary manner, Rs. 20 or Rs. 30 per mensem will cover all expenditure, and double this sum will suffice for Europeans.

vacancy has occurred, a deserving officer from the Executive Staff. In this way promotion may occasionally be made from the Subordinate to the Superior Branch of the Department; but such cases have been, and will be still more in the future, an exception to the general rule that the superior posts shall be filled by appointment in England of well-educated young men specially trained in Europe in the theory and practice of scientific Forestry. The classes and grades into which the Controlling Staff is divided are as follows:

	Rs.
Inspector General with the Government of India	1,700 to 2,000
Conservators, 1st grade	1,500
„ 2nd „	1,250
„ 3rd „	1,000
Deputy Conservators, 1st grade	900
„ 2nd „	800
„ 3rd „	650
„ 4th „	550
Assistant Conservators, 1st grade	450
„ „ 2nd „	350
„ „ 3rd „	250

The classification and the salaries have been prescribed by the Government of India, and are the same in all Provinces.

Each Province, however, has its own Provincial cadre, the strength of which has been fixed for it by the Supreme Government with reference to its requirements.

The cadre of the North-Western Provinces and Oudh is as follows:

		Rs.
Conservators	3	1,000—1,500
Deputy Conservators, 2nd grade	2	800
„ 3rd „	3	650
„ 4th „	4	550
Assistant Conservators, 1st „	4	450
Ditto, 2nd and 3rd „	3	250-350
Total	19	

Promotions from the class of Deputy Conservators to that of Conservator, and from the 2nd to the 1st grade of Deputy Conservators, are made by the Government of India. Promotions in all the lower classes and grades rest with the Local Government. The principles on which promotions are made and the departmental examinations in the vernacular which have been prescribed for officers in the lowest grades are set out in the rules forming annexure B.

(2) *The Executive Staff.*

The Executive Staff comprise—

(*a*) Sub-Assistant Conservators on Rs. 150 to Rs. 250.

(*b*) Forest Rangers on Rs. 50 to Rs. 120.

The class of Sub-Assistant Conservators is at present numerically unimportant. In these Provinces there are only four such appointments, *viz.*:—

	Rs.
1 in the 1st grade	250
2 in the 2nd „	200
1 in the 3rd „	150

Of the four Sub-Assistant Conservators, three are pure Natives of India, and one is a European coming within the definition of a "Statutory Native."

Appointments to the rank of Sub-Assistant Conservators are ordinarily made from the Forest Rangers, whose numbers, training, and mode of appointment will now be described. The sanctioned posts of Rangers in the Province are:—

Oudh Circle.

		Rs.
1	on	80
2	„	60
4	„	50

School Circle.

1	on	120
1	„	100
2	„	80
3	„	60
5	„	50
19		

Central Circle.

19						
1	on	...	...	...	...	150
1	,,	...	...	...	...	100
1	,,	...	...	...	...	80
3	,,	...	...	...	...	60
5	,,	...	...	...	...	50
30	Total for the Province.					

They are shown separately for each of the three circles into which the forests in these Provinces are divided, as promotions are regulated by vacancies occurring in each separate circle. It may be remarked that all the sanctioned posts have not yet been filled up, as the supply of properly trained men is at present insufficient. Forest Rangers are recruited from—

(i) Candidates who have obtained the Ranger's certificate at the Forest School, Dehra Dun.

(ii) Candidates who have obtained the Forester's certificate at the Forest School, Dehra Dun, and who have afterwards rendered not less than two years' satisfactory service as Foresters.

(iii) Subordinates who have earned such promotion by faithful and meritorious service, and Native Non-Commissioned Officers of Her Majesty's Army who have entered the Forest Department under the orders contained in Appendix II of the 3rd Edition of the Forest Code.

The Forest School at Dehra Dun is therefore the chief source from which the class of Rangers is obtained. The rules for the admission and training of students at this School are given in annexure C, and the numbers attending the School and the character of the curriculum will be found in the annual School Report for 1885, which forms annexure D. Briefly speaking, the School is divided into two divisions—a Ranger's class, in which instruction is given in English, and to which no one is eligible who has not passed the Entrance Examination of an Indian University; and a Forester's class taught in Urdu, candidates for which must have passed the Middle Class Examination. The candidates in all cases must be approved by the Director of the School, or by the Conservators of Forests acting under the orders of the Local Government; and, as a rule, they are required before admission to have proved their fitness for Forest work by a year's service in the Department as Foresters or Forest Guards.

The course of instruction for the Ranger's certificates extends over 18 months, and for the Forester's certificate over 12 months. Students of the Ranger class who fail to obtain the Ranger's certificate may be granted the Forester's certificate. Students who obtain the Ranger's certificate may, on return to their Province, be made Rangers; and those who obtain the Forester's certificate are appointed Foresters, and are required to serve at least two years satisfactorily in that rank before they are eligible for promotion to the class of Rangers. The Forest School, it may be added, is an Imperial and not a Provincial Establishment, and it is intended to provide instruction in practical and theoretical Forestry for students from all parts of India.

In 1885, the last year for which figures are available, there were in all 63 students, of whom 7 were from Native States. Of these, 44 were in the Ranger's class and 10 in the Forester's. During the year 9 Ranger's certificates were granted and 3 Forester's. From the nominal list of students, it would seem that only 7 of them are Eurasians or Europeans.

The utility of the School is unquestionably great, and the main defect is that the number attending it are insufficient to supply the demands of the Forest Department in this and other Provinces. In a few years, however, the majority of vacancies in the Rangerships in these Provinces will be filled by persons who have obtained certificates at the School. But the great mass of the Foresters will, probably for years to come, be unaffected by it.

(3) *The Protective Staff.*

This does not require particular notice; it consists of Forest Guards on salaries ranging from Rs. 5 to Rs. 12, and of Foresters on salaries from Rs. 15 to Rs. 40.

II.—CONDITION OF SERVICE IN THE DEPARTMENT IN REGARD TO PAY, PENSION, AND FURLOUGH.

Pension.

See Civil Pension Code, 6th Edition, sections 67, 96, 113, 114, 115 and 116. Other officers of the Forest Department come under the general rules for Uncovenanted Officers—Chapter IX of the Code. Forest subordinates count for pension time passed on leave during recess on half pay, provided they return to duty when required by their superior officers,—section 97 (2).

Forest Guards are inferior officers,—section 93.

Furlough.

Taken by officers appointed from Europe, periods of which may count towards pension (see above under section 96 of the Pension Code).

Leave generally.

The Uncovenanted Service Rules apply—Chapter X of the Leave Code.

III.—THE TECHNICAL REQUIREMENTS OF THE DEPARTMENT AND THE PROFESSIONAL ATTAINMENTS ESSENTIAL FOR EFFICIENT SERVICE IN ITS VARIOUS BRANCHES.

The professional requirements of the Controlling Staff will be best ascertained from the correspondence in annexure E between the Secretary of State and the authorities of Cooper's Hill College

regarding the course of studies to be pursued by the selected candidates during their two years training in Europe. A good general education, especially in Mathematics and Physical Sciences, a sound constitution, and active habits, are considered indispensable for all candidates.

The probationary training is intended to deepen the scientific education of the candidates, and to make them conversant with the theory and practise of Forestry as developed in the great forests of Europe.

"Theoretical instruction in Forestry, together with kindred subjects, such as Forest Jurisprudence, Surveying, and some of the Natural Sciences, form," it is said in the India Office letter forming the first exhibit of annexure E, "an essential part of the training of every properly educated Forest Officer." The professional requirements of the Executive and Protective Staff are shown in annexure F, which contains the orders of the Government of India on the constitution of the Forest School at Dehra Dun, and also annexure D, which contains a report on the School for 1885.

The aim of the Department is to improve the class of Rangers by insisting on a fair general education and knowledge of English, by instructing them for two years in theoretical and practical Forestry and Natural Science, and by giving them salaries rising from Rs. 50 to Rs. 120 or Rs. 150, and prospects of possible promotion to the class of Sub-Assistant Conservators. The Ranger, therefore, should be a well-educated man; he should also be a man of good physique, active habits, and inured to exposure and a rough life. The service consequently has comparatively little attraction for the ordinary run of educated Natives of India, and it is sometimes difficult to find candidates with the requisite qualifications.

IV.—THE CLASSES OF THE COMMUNITY WHO SEEK TO BE EMPLOYED IN THE DEPARTMENT AND THE COMPARATIVE CAPACITY OF EACH FOR RENDERING EFFICIENT SERVICE THEREIN.

This has been generally answered above; it has been shown that 3 of the 4 Sub-Assistant Conservators and all the Rangers are pure Natives of India.

V.—THE EXISTING ORGANIZATION AND CONSTITUTION OF THE DEPARTMENT.

(See appended statement).

Existing Organization and Constitution of the Forest Department, North-Western Provinces and Oudh.

1	2	3	4					
			NUMBER OF APPOINTMENTS IN EACH CLASS OR GRADE NOW HELD BY					
			1	2	3	4		
						Natives of India.		
Department.	Total number of gazetted appointments, or of appointments not being purely clerical, of salaries of Rs. 100 and upwards.	Description of the gazetted appointments and the other appointments mentioned in column 2 amongst classes and grades, with rate of pay attached to each.	Europeans not domiciled in India.	Europeans domiciled in India.	Eurasians.	(a) Hindus.	(b) Mahomedans.	(c) Others.	(d) Total.
Forest Department ...	Ordinary establishment ... 25 Supernumerary ... ... 1 Total ... 26	*Conservator of Forests—Sanctioned number 3.* The grades are three in number—1st grade, Rs. 1,500; 2nd grade, Rs. 1,250; 3rd grade, Rs. 1,000. Appointment and promotion rest with the Government of India, and a general list for all Provinces is maintained. The permanent appointments in the Province are :—							
		1st grade, Rs. 1,500 .. ... No. 1	1	...	...	...	...	...	...
		2nd „ „ 1,250 2	2	...	...	...	...	...	...
		Deputy Conservators of Forests—Sanctioned number 11.							
		1st grade, Rs. 900 ... ... No. 2	2	...	...	...	...	...	...
		2nd „ „ 800 2	3	...	...	...	...	...	...
		3rd „ „ 650 3	3	..	...	...	...	...	...
		4th „ „ 550 4	4	1	...	..	...	...	...
		Assistant Conservators of Forests—Sanctioned number 7. The grades are three in number—1st grade, Rs. 450; 2nd grade, Rs. 350; 3rd grade, Rs. 250. The number in 2nd and 3rd grade is not fixed, promotion from 2nd to 3rd grade being regulated by qualification (in Forest Law, &c.) The present allotment is :—							
		1st grade, Rs. 450 ... ... No. 4	3	1	...	...	...	...	...
		2nd „ „ 350 3	3[a]	..	...	...	...	...	...
		Supernumerary, 2nd „ „ 350 1	...	1	...	...	...	...	...
		Sub-Assistant Conservators of Forests—Sanctioned number 4.							
		1st grade, Rs. 250 ... No. 1	...	...	...	1	...	...	1
		2nd „ „ 200 2	...	1	...	1	...	...	1
		3rd „ „ 150 1	...	...	.	1	...	...	1
Forest School, Dehra Dun, Forest Survey, or under the Government of India,	Special appointments ... 4	*Sanctioned number 4.* Deputy Director of Forest School, Rs. 700, rising by annual increments of Rs. 40 to Rs. 900.	1	...	...	..	...	...	...
		Instructor at the Forest School, as above, Rs. 600 to Rs. 800	1	...	...	...	...	...	...
		Deputy Superintendent of Forest Surveys, as above, Rs. 600 to Rs. 900	1	...	...	...	...	...	...
		Assistant Inspector General of Forests and Superintendent of Working Plans, as above, Rs. 600 to Rs. 900, or pay of grade, plus Rs. 200 a month.	...	...	1	...	...	...	...
	Grand Total ... 30		23	3	1	3	...	...	...

Supplementary Statement showing Ranger's posts.

1	2	3	4						
			NUMBER OF APPOINTMENTS IN EACH CLASS OR GRADE NOW HELD BY—						
			1	2	3	4			
						Natives of India.			
Department.	Total number of Rangerships, not being purely clerical, of salaries of Rs. 50 and upwards.	Distribution of other appointments mentioned in column 2 amongst classes and grades, with rate of pay attached to each.	Europeans not domiciled in India.	Europeans domiciled in India.	Eurasians.	(a) Hindus.	(b) Mahomedans.	(c) Others.	(d) Total.
Forest Department, North-Western Provinces and Oudh.	The present sanctioned number of Rangerships in the Provinces is 30, but the full number has not yet been worked up.	The class of Forest Rangers is graded as follows, the present strength being noted :—							
		No.							
		1st grade, Rs. 150	...	...	...	...	...	...	...
		2nd „ „ 120	...	...	...	...	...	...	...
		3rd „ „ 100 1	...	...	...	1	...	...	1
		Grand Total ... 1	...	...	...	1	...	...	1

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Further Note by the Departmental Member, North-Western Provinces and Oudh.

I.—Conditions of service in regard to pay, pension, and furlough.

With regard to the special position assigned by Government to the Covenanted Officers of the Forest Department in connection with pensions, as compared with the position of their brother officers in the Public Works and Telegraph Department as shown in the form attached,* there is no doubt that it is felt as a slur on the Department, while it is also believed to injuriously affect the interests of Government.

It is believed this different treatment will affect the number of candidates at home, as the Service will be looked on as inferior to the Public Works or the Telegraphs, and that the majority of the Forest candidates will be men unable to qualify for the superior departments. It may be noted that within the last twelve years or so the number of candidates has fallen from about twelve for each vacancy to about twelve for five vacancies last year. Any fall-off in the quality of Forest Officers is likely to affect their official social status in India; and when we consider the position of Forest administration as a part of the general administration of each district, and the relations of Forest Officers with revenue, judicial, and military and other authorities, any change will be a cause for regret. Further, by preventing the retirement of Forest Officers after 20 years' service on a proportionate pension, the best interests of Government are not served, as it is admitted that the best service a Forest Officer does (unless he has in the interim attained to the higher administrative offices) is during the earlier portion of his service.

The special personal requirements of the Forest Department as regards appointment to the Executive grades of Ranger and Sub-Assistant Conservator are that the candidates should be of respectable family and good character; that they should be strong physically and mentally, able to work themselves, and command the respect of their subordinates.

Range Officers should be firm and possess common sense to enable them to work smoothly with the inhabitants of the country near their Forests, and the men working in their Forests.

With regard to the personal qualifications required in candidates for the Superior Establishment, they are fully set forth in the recent orders of Government, and I need only add that I think it is important that, as at present, the social position of Forest Officers should be on a par with that of other officers with whom they mix, and that, as at present, recruits should be drawn from the same sources.

The technical requirements of the Department in its different branches are fully explained in the orders regarding the courses for Forest Rangers at the Dehra Dun Forest School and for the Forest course at Cooper's Hill College.

II.—The classes of the community who seek to be employed in the Forest Department.

With regard to the Superior Establishment, I do not think suitable candidates are forthcoming; the profession is not one sought after by Native gentlemen, and it would be a great mistake to push men of lower status into the higher ranks unless, as provided by the present rules, they have by approved service shown themselves specially qualified for such promotion.

With regard to candidates for Executive posts, we have—

(i) Europeans domiciled in India who have generally been well educated at the large Schools in the hills or Colleges in the plains;

(ii) Eurasians;

(iii) Natives of India of Asiatic descent.

It is of course to the latter class that we must look for most of our recruits; but it is generally agreed that a proportion should be recruited from the first two.

It has been a matter of great difficulty to obtain satisfactory, well-educated candidates for the Ranger's class, as the best men from the Colleges and High Schools prefer the Subordinate Executive and Judicial Branches of the public service, and have no taste, as a rule, for the Forest Service. The principal reasons for the distaste shown by educated Natives for the Forest Service are the unhealthy character of the Forest Districts, the isolated position, and the absence of all the pleasures of civilized life. Besides this the work is hard, the fare scanty, and separations from family connections are prolonged.

In the three circles of the North-Western Provinces and Oudh most of the applications for employ come from sons of officials, chiefly residents of towns; while applications also come from similar sources in the Punjab and Bengal. Our best candidates are the sons of landholders and of men living away from towns. Army Schoolmasters have in the School Circle given us some good men. As regards the capabilities of the various classes for employ, no special notes can be given. We have good Hindu subordinates of all classes, and equally good Mahomedans; many excellent Europeans and Eurasian subordinates are now in the Service.

The main points to be looked to are their previous life and education, and the possibility of their living in and liking work in the wilds.

It is obvious men from the wilder districts, or who have roughed it more than most College students do, give us our best recruits.

* Printed with Mr. Carr's evidence (Section III).

The School at Dehra Dun, as at present constituted, is barely strong enough to carry on the education of the Subordinate Staff; while it further labours under the disadvantage of not being in the vicinity of forests in which the theories taught in the School have for long periods been carried into practice.

In doing its present work, the School is practically strengthening the Superior Staff.

Forest management is improving yearly, and the enormous Forest Divisions of former days are broken up into smaller charges in which scientific treatment is possible. Unless a Subordinate Staff, fit to take charge of much of the work hitherto done by European Divisional Officers, is created, a considerable increase in the staff of men appointed from home is necessary. The Forest School is training men to take the position of Ranger and Sub-Assistant Conservator, and so relieving the members of the Superior Establishment, and rendering efficient management possible.

III.—As regards the training of candidates for the Controlling Staff.

With regard to Natives of Asiatic descent, I think no suitable candidates can be found, and, further, I think while the Department is, as it now is, a comparatively newly formed one, it is important that it should be officered, as at present, by Europeans of the upper middle class, whose minds have been formed by an education in England, and who have received the best professional training possible.

The Government rules provide for occasional recruits being employed in India, *i.e.*, promoted from the Sub-Assistant grade; and this proviso, I think, leaves a door open for suitable men, as they may come to the front.

As regards the appointment of men trained at Rurki and later at the Forest School, I do not see how their training can be as complete as that of men appointed at home. It is very unlikely we should get candidates who would take up the same position as men appointed from home; while it is, I believe, a fact that they would be more costly to Government if brought in under present rules.

While I think the present rules which provide a Forest career for all classes of the community are sound, I think any changes in the rules which would admit an untried class of men to the Controlling Staff or training in Forestry wholly in India will be disastrous to Forest administration, as likely in every way to give us a less powerful Controlling Staff.

SUPPLEMENTARY STATEMENT SHOWING RANGERS' POSTS.

Existing Organization and Constitution of the Forest Department, North-Western Provinces and Oudh.

1	2	3		
Department.	Total number of Rangerships, not being purely clerical, of salaries of Rs. 50 and upwards.	Distribution of other appointments mentioned in column 2 amongst classes and grades, with rate of pay attached to each.		
Forest Department, North-Western Provinces and Oudh.	The present sanctioned number of Rangerships in the Provinces is 30, but the full number has not yet been worked up.	The class of Forest Rangers is graded as follows, present strength being noted:		
			Rs.	No.
		1st grade	150	...
		2nd „	120	...
		3rd „	100	1
		4th „	80	2
		5th „	60	5
		6th „	50	9
		Grand Total ...		17

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No. 1796, dated Allahabad, 12th April 1887.

From—The Secretary to the Government of the North-Western Provinces,

To—The Secretary to the Public Service Commission.

With advertence to paragraph 2 of the Public Service Commission's letter, which invites an expression of the Lieutenant-Governor's views on any of the points mentioned above, I am to enclose copy of correspondence that passed in 1883-84 between this Government and the Government of India on the subject of giving additional facilities for the employment of Natives of India in the Forest Department. The point that was particularly argued in these letters is stated in the 5th paragraph of a letter, dated 4th July 1884, from the North-Western Provinces Government. One of the objects of the Forest School was to train Natives of India for the superior class of Forest appointments; but the experiment sanctioned in 1879 was pronounced a failure in 1881 after an exceedingly brief trial, and Sir Alfred Lyall was, and still is, inclined to regret that this object had been abandoned. A reference to the earliest Resolution of 1869, dated 28th July, on the constitution of the Forest Department, and specially to the report of Dr. Brandis appended to that Resolution, will show that the Government of India at that time contemplated the eventual introduction into the Department of a considerable Native element, to be ultimately trained in India The Lieutenant-Governor believes that these objects ought to be steadily kept in view; and although it is natural that the chief of the Department should prefer the superior efficiency that must always be secured by importing Europeans, he does not think that these considerations, although undoubtedly plausible, should be permitted so completely to override the substantial reasons in favor of admitting Natives of India trained in this country to a share of the superior appointments.

If the Local Governments were authorized to look out for candidates willing to qualify in the School, it is probable that a few capable Natives would before long be forthcoming.

Note by the Departmental Member, Punjab.

No. 872, dated 21st April 1887.

From—H. MAUDE, Esq.. Under-Secretary to the Government of the Punjab,

To—The President, Sub-Committee, Public Service Commission.

In reply to your letter No. 193, dated 18th March 1887, I am directed to forward in original a letter No. 112, dated 18th April 1887, and enclosure, from the Conservator of Forests, Punjab, furnishing the required information regarding the constitution of the Forest Department. A copy of Punjab Government Notification No. 3048, dated 16th December 1885, cited by the Conservator, is enclosed for facility of reference.

2. I am to request that the original papers may be returned when no longer required.

Note by Major F. Bailey, R.E., Conservator, Punjab.

(1) The regulations of the Department as to admission to the various grades and ranks of which it is composed, and to promotion therein, are to be found in the Departmental Code, Chapter II, Parts I, II and III. *Punjab Gazette* Notification No. 3048 of the 16th December 1885 lays down the educational qualifications required in candidates for admission to the public service under the Punjab Government, and in certain cases for promotion therein.

(2) The conditions of service in the Department in regard to pay, pension, and furlough are as follows:

Pay.

The rates of pay drawn by members of the Controlling and Executive Staff are laid down in paragraphs 7 and 8 of the Code.

Pension.

The members of the Forest Department are ordinarily pensioned in accordance with the rules for Uncovenanted Officers (*vide* Civil Pension Code, Chapter IX). But officers of the Department, who have been specially trained in Europe, appointed by the Secretary of State, enjoy certain privileges (see sections 67, 96, and 114 of the Civil Pension Code).

Furlough.

The members of the Forest Department are ordinarily granted furlough under the rules for Uncovenanted Officers (see Chapter X of the Civil Leave Code). The Assistant Conservators and officers of higher rank, who have been appointed by the Secretary of State, or with his particular sanction, are granted furlough under the rules contained in Chapter V of the Civil Leave Code. Certain other officers, whose names appear in Schedule B (see section I (*c*) of the Civil Leave Code), are also granted furlough under the same Chapter.

(3) With regard to the technical requirements of the Department, and the professional attainments essential for efficient service in its various branches, I beg to invite reference as follows:

For the Controlling Staff.

To the "Paper of particulars" relative to admission to the Forest class at Cooper's Hill College (Circular No. 1F, Revenue and Agricultural Department, Forests, dated 15th January 1887), and the Memorandum on the education of officers at Cooper's Hill (*vide* Circular No. 22F., Home Department, Forests, dated 24th September 1885).

For the Executive Staff.

To similar documents relating to the Central Forest School at Dehra Dun (*vide* Appendix I of the Forest Department Code, and the report of the School courses during 1885). It is highly desirable that all members of the Controlling and Executive Staff should possess the professional attainments indicated above; but at present in this Province only 39 per cent. of the Controlling Staff have passed through a complete course of professional training (formerly given in France and Germany), and only 37 per cent. of the Executive Staff have passed through the School at Dehra Dun.

Protective Staff.

A class for Foresters has recently been instituted at Dehra Dun; but only two men from the Punjab have attended it. Although it is desirable that men of this class and Forest Guards should receive some kind of professional training, it has not been found possible to arrange for this at present. But when employed under capable officers of the Controlling or Executive Staff, they are found, in the course of time, to attain a fair standard of professional knowledge.

(4) I assume that the question as to the classes of community who seek to be employed in the Department, and the comparative capacity of each for rendering efficient service therein, refers to men appointed in India, and not to those nominated by the Secretary of State in the United Kingdom. The few candidates who are appointed direct to the class of Sub-Assistant Conservator are, generally speaking, the sons of European Government servants or pensioners domiciled in this country. The Rangers are for the most part the sons of Government servants, zemindars, shopkeepers, and cultivators in about equal proportions. I am unable to say that any one class is markedly superior to the others. But the appointments are sought more by Hindus than by Mahomedans. As a general rule the attainments of the candidates are not of a sufficiently high order; and it is difficult to select among men who have passed the Entrance Examination of an Indian University candidates who can profitably follow the courses at the Dehra Dun Forest School.

The Foresters and Forest Guards are the sons of Government servants, cultivators, and shopkeepers. I am not at present in a position to say which class renders the most efficient service.

(5) I attach a statement showing the organization and constitution of the Department in the prescribed form (page 43).

Further Note by the Departmental Member.

The present staff of Rangers in the Punjab is as follows, *viz.*,—

		Per mensem. Rs.	
2 at		150	Mr. Wallace. Mr. Rossiter.
1 „		120	
1 „		100	
2 „		80	
3 „		60	
13 „		50	
Total ... 22 at		1,510	

There are far too many men in the lower grades. The scale should be revised, and should stand something like this, *viz.*,—

	Per mensem. Rs.
5 at	120
5 „	100
6 „	80
6 „	60
Total ... 22 at	1,800

Mr. Ribbentrop's scheme would for this number of Rangers give three Sub-Assistant Conservators. This is not enough. I have four now. But the staff of Rangers must be added to, and the number of Sub-Assistant Conservators will then be increased proportionately.

2. If Statutory Natives, who are Englishmen or Eurasians, wish to enter the Ranger class, either with a view to remain in it, or as a means of gaining access to the higher ranks, they should begin the service in the lowest grade, and take their chance of advancement with the others. It is extremely unfair to put them over the heads of Asiatics already serving merely because they are white, or have some white blood in them.

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It should be open to all Rangers, who can qualify themselves up to the required standard, to rise to the class of Sub-Assistant Conservator.

3. There is a rapidly increasing number of Europeans, born and bred in the country, and the question of their employment must be a serious one at the present time. It will become more so. They have not yet been able to realize that it is quite impossible for them all to follow in the footsteps of their fathers, and to become State servants in more or less high positions. They belong to the ruling race, and it seems to them unfitting that they should do anything in the way of work or trade. There are not many kinds of work in which they can compete successfully with Natives, both on account of the smaller sum the latter can live on and of the climate. They have, as a rule, no capital. They ought to be taught to see that State employment for all of them is out of the question, and they should be encouraged to undertake such work as they are fitted for. The best thing would be to facilitate the emigration of the surplus of them for which suitable State or other employment cannot be found.

I receive a good many applications from such men for employment in the Forest Department. A Conservator of Forests has recently asked me to see for him some young men who are candidates for direct appointment as Sub-Assistant Conservator. I do not exactly know what prospect he will be able to offer them; but I think it is a mistaken policy to appoint young men Sub-Assistant Conservators without a distinct prospect of their rising higher; they cannot serve all their life on the same (small) rate of pay. If it is contemplated that they shall ultimately rise to occupy such vacancies on the Controlling Staff as may be open to men in this country, care should be taken at the time of their first selection that they are men who promise to become qualified for advancement. But at present the prospect of a Sub-Assistant Conservator rising to the Controlling Staff, under the provisions of paragraph 21 of the Forest Code, is very small.

4. A young man, the son of a District Superintendent of Police, has applied to me for a Rangership with a view to getting into the Forest School, and so rising in the Department. He says he cannot get any employment, though he has applied to enter the Police, Survey, and other Departments. He will accept Rs. 50 a month as a Ranger, and take his chance. Such a man, if appointed a Ranger, should enter at the bottom of the list; and Rangers of all creeds and colors should have an equal chance of rising to the class of Sub-Assistant Conservator. But, while most of them will probably be unsuited for the Controlling Staff, it will be difficult to push men of exceptional merit and qualifications sufficiently rapidly through the Rangers' grades; and to meet this difficulty, I propose to reserve a proportion, say one-third, of the Sub-Assistant Conservatorships for the *direct* appointment thereto of young men, whether Englishmen or Asiatics, who are considered, on account of their superior attainments, suitable for subsequent promotion to the Controlling Staff. Vacancies in the Controlling Staff might be filled alternately by men appointed to the class of Sub-Assistant Conservator direct and by old Rangers, provided that in every case the man so selected is fully qualified for advancement.

Existing Organization and Constitution of the Forest Department, Punjab.

1	2	3	4						
			NUMBER OF APPOINTMENTS IN EACH CLASS OR GRADE NOW HELD BY						
			1	2	3	4			
						Natives of India.			
Department.	Total number of gazetted appointments, or of appointments not being purely clerical, of salaries of Rs. 100 and upwards.	Distribution of the gazetted appointments and the other appointments mentioned in column 2 amongst classes and grades, with rate of pay attached to each.	Europeans not domiciled in India.	Europeans domiciled in India.	Eurasians.	(a) Hindus.	(b) Mahomedans.	(c) Others.	(d) Total.
		Pay. Rs.							
		1 Conservator ... ... 1,000—1,500	1	...	...	...	...	...	...
		Deputy Conservators.							
		Per mensem. Rs.							
		1 1st grade 900	1	...	...	...	...	...	...
		2 2nd ,, ... 800	2	...	...	...	...	...	...
		4 3rd ,, ... 650	3	1	...	...	...	...	...
		4 4th ,, ... 550	3	1	...	...	...	...	...
		Assistant Conservators.							
		Per mensem. Rs.							
Forest.	27, including a Probationer and 4 Rangers.	4 1st grade 450	4	...	...	...	...	...	...
		2 2nd ,, ... 350	2	...	...	...	...	...	...
		3rd ,, ... 250	...	...	...	...	...	...	...
		Sub-Assistant Conservators.							
		4 200	...		...	1	...	...	1
		Probationer.							
		1 150	...	...	...	...	1	...	1
		Rangers.							
		Per mensem. Rs.							
		2 1st grade 150	...	2	...	...	...	...	...
		3 2nd ,, ... 120	...	...	...	1	...	...	1
		1 3rd ,, ... 100	...	...	...	1	...	...	1
Total ...	27	27	6	7	...	3	1	...	4

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Information supplied by the Central Provinces Administration.

No. 2380—121, dated Nagpur, 14th May 1887.

From—The Under-Secretary to the Chief Commissioner, Central Provinces,
To—The Secretary to the Public Service Commission.

I am directed to acknowledge the receipt of your letter No. 196, dated the 18th March last, soliciting an expression of the Chief Commissioner's views on certain points relative to the admission of persons to the various grades and ranks of the Forest Department in the Central Provinces.

2. In reply, I am to forward the accompanying copy of a letter, No. 15B. of the 27th ultimo, from the Conservator of Forests, Central Provinces, on the subject, and to say that Mr. Mackenzie sees no ground for suggesting any change in the orders regulating admission to the Forest Department.

No. 15B., dated Nagpur, 27th April 1887.

From—The Conservator of Forests, Central Provinces,
To—The Secretary to the Chief Commissioner, Central Provinces.

In compliance with your No. 1563—83 of 23rd March 1887, I have the honor to submit the following information required by the President to the Public Service Sub-Committee, and, in so doing, I would first draw attention to sections 6 and 7 of the Forest Code (3rd edition), which gives the classification and grading of the establishment.

2. *Admission to the Department.*—For information regarding the rules by which admission to the Controlling Staff is governed, reference may be made to section 21 of the Forest Code and the Government of India Circulars No. 22F. of 24th September 1885, No. 15F. of 28th October 1886, and No. 1F. of 15th January 1887.

Admission to the class of Sub-Assistant Conservator and Forest Ranger is regulated by sections 34 to 39 of the Forest Code (3rd edition), and also by Appendix I of the same Code.

3. Promotion to the class of Conservator rests with the Government of India. The rules regulating promotions in the grades of Deputy and Assistant Conservator are laid down in sections 22 to 26 of the Forest Code. Promotions to and within the classes of Sub-Assistant Conservators and Forest Rangers are made with due regard to the length of service, merits, and qualifications of the individuals concerned. Promotions to and within the class of Sub-Assistant Conservator are made by the Local Government: those to and within the class of Forest Ranger by the Conservator, subject to the condition that no subordinate who has not complied with the prescribed conditions in respect of qualification may be promoted to the class of Forest Ranger without the special sanction of the Local Government,—see Rules 10 and 11 of Appendix I of the Forest Code (3rd edition).

4. *Salaries.*—The grading of the Controlling Staff and the salaries of the appointments in each grade are given in section 7 of the Forest Code.

The salary of a Sub-Assistant Conservator is at present Rs. 200 per mensem, but the appointments in this class are now about to be graded as follows:

	Rs.
1st grade	250 per mensem.
2nd „	200 „
3rd „	150 „

The grading and salaries of subordinates of the Ranger class are as follows:

Present.	Rs.	Now about to be introduced.	Rs.
1st grade	150	1st grade	120
2nd „	125	2nd „	100
3rd „	100	3rd „	80
4th „	80	4th „	70
5th „	75	5th „	60
6th „	70	6th „	50
7th „	60		
8th „	50		

It is presumed that details are not required regarding appointments below that of Forest Ranger.

5. *Pension.*—The rules of the Civil Pension Code (6th edition amended), Chapter IX, apply to all members of the Forest Department who are not borne on the strength of the Army, and are consequently eligible for military pension. The sections of the Civil Leave Code limiting or extending the ordinary provisions of the Code in respect of officers of the Forest Department are sections 67, 96, 114, 97 and 93.

6. *Leave.*—As indicated by section 1 (*c*) of the Civil Leave Code, certain Forest Officers are eligible for leave under Chapter V of that Code; to all other Forest Officers, subject to the provision contained in section 127, the provisions of Chapter X of the same Code apply.

7. *Class of the community who seek employment in the Department.*—The candidates for employment in the Controlling Staff, to which appointments are made by Her Majesty's Secretary of State for India, are almost exclusively Europeans.

Direct appointments to the class of the Sub-Assistant Conservator are exceptional, and hence it is difficult to say by what class these appointments are most sought after. These appointments are intended for Natives, but of six applications in respect of vacancies likely to be available that have come before me, five are by, or in behalf of, Europeans.

In former years the competition for appointments in the class of Forest Ranger and Forester by Mahomedans whose ancestors had come from Southern India and settled in the Provinces was strong; but since the passing of the Entrance for the Calcutta University and the Middle School Examination has been required respectively for admission to these classes, the chief candidates have been Hindus, of whom by far the greater number are Maratha Brahmans.

There can, I think, be no doubt that Europeans and Mahomedans of Southern India adapt themselves most readily to the life of a Forest Officer, at any rate in these Provinces; and it must be acknowledged that the Mahomedans are more hardy and under sickness, to which Forest officials are exceptionally exposed, have greater endurance than any other class of Natives in these Provinces. On the Hindu, and especially the Brahmans, forest life is a hardship of greater or less degree.

Assuming the educational attainments to be equal, the Mahomedan will, I believe, prove more successful as a Forest official than any other class of Natives, first, on account of his greater aptitude for forest life; and, secondly, on account of his greater capacity for maintaining order and discipline.

8. *Technical requirements of the Department for the efficient discharge of the duties of different grades.*—In reference to the technical requirements necessary for the efficient discharge of the duties of the different grades, it is presumed that this information is only required in respect of those grades carrying salaries of Rs. 100 per mensem and upwards.

For the class of Forest Ranger, apart from a good constitution, active habits, good eyesight, hearing, and power of observation, the following special qualifications are necessary:

A knowledge of Forestry, Forest Law, systematic Botany and Vegetable Physiology, elementary Geology and Mineralogy, and the elements of Physic and Chemistry.

Forest Rangers should also be able to survey with the plane-table and chain and with the prismatic compass, to plot from the field books, and calculate areas from maps. Ability to undertake the construction of ordinary roads and buildings is also necessary.

The next higher class, that of Sub-Assistant Conservator, is under existing rules ordinarily recruited from that of Forest Ranger.

The technical qualifications necessary for officers of the Controlling Staff are, so far as they can be stated, at present indicated by Dr. Schlich's memorandum, copy of which was issued with Government of India Circular No. 22F. of 24th September 1885.

There can, I think, be no doubt that, while the life entailed by Forest employ is more or less distasteful to pure Natives of India of different classes, it is not, as a rule, distasteful to Europeans or people of European extraction; and whereas Europeans accept Forest service chiefly from choice of a profession, Natives accept such service rather for the sake of the income to be derived from it. For this reason, as well as the fact that Europeans are, as a rule, capable of exercising more personal influence, and are not exposed to the same feelings of jealousy on the part of officials below them, I consider them better fitted for the organization, direction, and control of large establishments such as fall to the charge of officers of the Controlling Staff; given the same training, they will, I believe, also prove the best Foresters.

Appended is a statement showing the constitution of the permanent staff in respect of appointments carrying salaries of Rs. 100 per mensem and upwards.

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Existing Organization and Constitution of the Forest Department, Central Provinces.

1	2	3	4						
			NUMBER OF APPOINTMENTS IN EACH CLASS OR GRADE NOW HELD BY						
Department.	Total number of gazetted appointments, or of appointments not being purely clerical, of salaries of Rs. 100 and upwards.	Distribution of the gazetted appointments and the other appointments mentioned in column 2 amongst classes and grades, with rate of pay attached to each.	1	2	3	4			
						Natives of India.			
			Europeans not domiciled in India.	Europeans domiciled in India.	Eurasians.	(a) Hindus.	(b) Mahomedans.	(c) Others.	(d) Total.
Forest ...	22	1 Conservator, 1st grade, at Rs. 1,500.	1	...	...	...	...	...	...
		4 Deputy Conservators, 1st grade, at Rs. 900.	3	1	...	...	...	...	...
		2 Deputy Conservators, 3rd grade, at Rs. 650.	2	...	...	...	...	...	...
		1 Deputy Conservator, 4th grade, at Rs. 550.	1	...	...	...	...	...	...
		3 Assistant Conservators, 1st grade, at Rs. 450.	3	...	...	...	...	...	...
		2 Assistant Conservators, 2nd grade, at Rs. 350.	1	1	...	...	...	...	...
		2 Assistant Conservators, 3rd grade, at Rs. 250.	1	...	...	1	...	...	1
		3 Sub-Assistant Conservators, 2nd grade, at Rs. 200.	...	...	...	2	1	...	3
		1 Sub-Assistant Conservator, 3rd grade, at Rs. 150.	...	...	...	...	1	...	1
		1 Forest Ranger, 1st grade, at Rs. 125.	...	...	...	...	1	...	1
		2 Forest Rangers, 2nd grade, at Rs. 100.	...	1	...	...	1	...	1

Information supplied by the Assam Administration.

No. 2655, dated Shillong, 12th May 1887.

From—The Secretary to the Chief Commissioner of Assam,
To—The President to the Public Service Commission.

In reply to your letter No. 258S., dated the 31st March 1887, making certain inquiries regarding the Forest Department in Assam, I am directed to forward copy of a letter from the Conservator of Forests, No. 14A., dated 8th April, containing information on the points mentioned.

2. The Forest Department in Assam is organized in exactly the same way as in all other Provinces in India, and the Forest Code which regulates its constitution is identical for the whole Empire. There are thus no special local conditions of service on which the Chief Commissioner can throw light. He believes that the present organization of the Department is well suited for the ends in view, and that the measures already in force for the instruction of Natives of India in Forestry are likely, in the course of time, to supply a considerable number of qualified men to take up Forest appointments. But in this Province at least Forest Officers are exposed to many hardships, and have to be persons of strong constitution and active habits. These qualifications are not often found to be conjoined in Natives with the necessary scientific attainments; and it is not to be expected that the profession in Assam will offer many attractions to educated Natives of the country.

No. 14A., dated Shillong, 8th April 1887.

From—The Conservator of Forests, Assam,
To—The Secretary to the Chief Commissioner of Assam.

With reference to your endorsement No. 1641, dated the 26th ultimo, Current Department, General Branch, I have the honor to furnish the information required therein as follows:

(1) The present regulations of the Department regarding first appointment and promotion, &c., are detailed in sections 6 to 9, 21 to 24, and 35 to 43 of the Forest Department Code.

(2) The conditions of service in the Department in regard to pay of the Gazetted and Executive Officers are given in sections 7 and 8 of the Forest Department Code. The pay of the Foresters of the Protective Staff ranges from Rs. 15 to Rs. 40, and of the Forest Guards from Rs. 7 to Rs. 12. The pension and furlough rules are the same which apply to all other Departments, except the Public Works and Telegraph Departments, to which more favorable rules have been granted.

(3) The technical requirements of the Department and the professional attainments essential for efficient service in its various branches are those taught at the Cooper's Hill College and the Imperial Forest School at Dehra Dun. Subordinates below the grade of Forest Ranger acquire the simple duties which they have to perform in the Forests under instructions from their superior officers.

(4) All classes of the community seek for employment in the Forest Department in Assam, and all are equally capable of rendering efficient service therein. For the higher appointments, Bengalis have been found more reliable than Assamese; but for the lower appointments, such as Guards, the various hill tribes in this Province furnish the best men.

(5) The existing organization and constitution of the Department are shown in the enclosed prescribed tabular statement received with your endorsement under acknowledgment.

(6) The original enclosure received with your memorandum No. 2052, dated 11th instant, Current Department, General Branch, is herewith returned.

Existing Organization and Constitution of the Forest Department, Assam.

1	2	3	4						
			NUMBER OF APPOINTMENTS IN EACH CLASS OR GRADE NOW HELD BY						
Department.	Total number of gazetted appointments, or of appointments not being purely clerical, on salaries of Rs. 100 and upwards.	Distribution of the gazetted appointments and the other appointments mentioned in column 2 amongst classes and grades, with rate of pay attached to each.	1	2	3	4			
			Europeans not domiciled in India.	Europeans domiciled in India.	Eurasians	Natives of India.			
						(a) Hindus.	(b) Mahomedans.	(c) Others.	(d) Total.
		Rs.							
Forest ...	12 ...	Conservator, 2nd grade, pay ... 1,250	1	...	...	...	...	...	...
		Deputy Conservator, 2nd grade, pay ... 800	1	...	...	...	...	...	...
		Deputy Conservator, 3rd grade, pay ... 650	1	...	...	...	...	...	...
		Assistant Conservator, 1st grade, pay ... 450	2	...	...	...	...	...	...
		Assistant Conservator, 2nd grade, pay ... 350	2	...	...	...	...	...	...
		Assistant Conservator, 3rd grade, pay ... 250	1	...	...	...	...	...	...
		Sub-Assistant Conservator, pay 200	...	1	...	...	...	...	...
		Sub-Assistant Conservator, pay 150	...	...	...	2	...	...	2

Information supplied by the Berars Administration.

Note by Lieutenant-Colonel G. J. VanSomeren, *Conservator of Forests.*

(1) The present regulations of the Department as to admission to the various grades and ranks of which it is composed and to promotion therein, or, if no such regulations exist, a statement of the principles by which the departmental or other authority invested with the duty is guided in making first appointments to, or promotions in, the Department.

Controlling Staff, viz., the Conservator, Deputy Conservators, and Assistant Conservators.

The Conservator is appointed and promoted by the Government of India.

There are at the present moment four Deputy Conservators and Assistant Conservators in the Department, of whom two were originally appointed by the Secretary of State, and two in India by the Government of India. They are under the same rules as other officers of similar standing in India in the Forest Department as regards pension, salary, allowances, and promotion. Their promotion on the Local list, which is amalgamated with the Central Provinces and Coorg list, is, up to and inclusive of the 2nd grade of Deputy Conservators, settled in concert by the Local Governments concerned on the recommendation of the Conservators, and practically goes by seniority, except when junior Assistant Conservators pass certain examinations before their seniors. Promotions out of the 2nd grade of Deputy Conservators are made by the Government of India.

Executive Staff.—By orders contained in the last (3rd) edition of the Forest Code, Sub-Assistant Conservators are not on the Controlling Staff. But, as a matter of fact, they are at times placed in

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charge of Forest Divisions (called Districts in Berar). Two districts are at present managed by Sub-Assistant Conservators, who are both Natives of India. A third Sub-Assistant Conservator, also a Native, is under the orders of the Ellichpur District Forest Officer. Two out of three of these Sub-Assistants were formerly Foresters and then Rangers in the Department, and were promoted to their present rank by the Local Government, with the sanction of the Government of India. The third Sub-Assistant Conservator is an officer who was once a clerk in the Punjab Forest Office, was sent thence to the Forest School at Dehra Dun, and, after obtaining his certificate there, returned to the Punjab as Ranger, and was afterwards transferred to Berar as Sub-Assistant Conservator on probation, and has been now confirmed in that appointment. The promotion of Sub-Assistants to the Controlling Staff lies with the Government of India.

Rangers.—There are eight Rangers in Berar. The orders of the Government of India that, except for special reasons, no one is to be appointed a Ranger who has not obtained a Ranger's certificate at Dehra Dun are in force in Berar. As yet there is but one certificated Ranger on the list. Owing to the want of duly qualified men, and to the need of men in the position of Rangers, one man, who is a good workman, was in 1886 appointed a Ranger with the sanction of the Local Government; and one is a Ranger sub. *pro tem.*, but will revert to Forester on a qualified man becoming available. The promotion of Rangers from grade to grade lies with the Conservator. At present the establishment in Berar is four Rangers, 6th grade, on Rs 50; two, 5th grade, on Rs. 60; one, 4th grade, on Rs. 80; and one, 3rd grade, on Rs. 100. Rangers are now all placed on a general list, and, unless a man has special qualifications, seniority, as is but fair, is allowed much weight in promotion from grade to grade. As vacancies occur among Rangers, they would ordinarily be filled by promotion from the ranks of the Foresters.

Foresters.—The sanctioned establishment of Foresters in Berar is now 45, divided into three grades: the first of 9 men on Rs. 35; the second of 9 men on Rs. 25; the third of 27 men on Rs. 15. It is only quite lately that more care has been taken to appoint men of education to the rank of Forester. This is a very important matter, as it is intended that the class of Rangers shall ordinarily be recruited from among these men. To do this, a certain proportion of the Foresters must be men who have had a fair general education in English, and who have a sufficient knowledge of Mathematics especially, to enable them, when sent to the Forest School at Dehra Dun, to profit by the course of instruction there. The rule that no man is to go to the Forest School who has not passed the Entrance Examination on the English side at a University has been modified for Berar by the Government of India, and the Conservator is held responsible that none but men who are, as far as he can judge, qualified to go to the Forest School are sent there by him. It was intended that there should be four Foresters at the Forest School in training for Rangers, but this has not been found to be practicable as yet. There is now one man at the School; one more will be sent in June 1887. Two men appointed on probation were dismissed for bad conduct after a few months' trial. The other Foresters must now all be men who are able to read and write Marathi fluently. Vacancies are filled either by promotion from among the head Forest Guards, or by appointment direct into the Department of new men. These admissions into the promotions from grade to grade of Foresters are all made by the Conservator. The Foresters are now all put on a general list; and *cæteris paribus* seniority is allowed weight, especially among the two higher grades. Seniority is not paid so much attention to in promoting men out of the lowest grade.

Forest Guards.—There are in all 16 Head Guards and 62 2nd class Guards. These men are now appointed by the Deputy Commissioners of Districts, who, under the system of working in Berar, are responsible, aided by their District Forest Officers, for the care and working of the forests in their district. Stout, able-bodied men, and men with physical courage, are looked for first; and when such men can also read and write Marathi well, and are otherwise qualified, they are eligible to become Foresters. Such promotions are made to the lower grade of Foresters by the Conservator, but it is understood that the higher grades of Foresters will in time be filled only by good men whose educational attainments are, as a rule, far above what Guards possess.

Naka Karkuns.—There are 25 men called Naka Karkuns in the Melghât, who collect, at fixed stations where they live, the royalties due on forest produce exported from the Melghât. These men are all Government servants, and when their pay exceeds Rs. 15 a month should be appointed and promoted by the Conservator; but as their duties bring them into such close contact with the Deputy Commissioner of the District and his District Forest Officer, the Conservator has delegated his powers of appointment to the Deputy Commissioner. These men draw various rates of pay, from Rs. 25 to Rs. 10, and are generally Brahmans. They are not in the lists of Foresters, but can pass into them should they prove to be specially qualified. They have under them 19 peons on Rs. 7 a month, who carry money to the treasuries, and help to check the passage of forest produce through their stations. They are appointed by the Deputy Commissioner.

Office Establishment.—There are in all 15 clerks and 1 daftri in the offices. They are all appointed by the Conservator, and are drawn, as a rule, from the class of Maratha Brahmans who fill most of the clerks' places throughout Berar. They are all now on a general list, and are promoted by seniority, unless they are reported as not qualified for promotion. *All* clerks now admitted are required to be able to read and write English in addition to Marathi.

(2) *The conditions of service in the Department in regard to pay, pension, and furlough.*

11.—These are governed entirely by the various Codes and Regulations issued from time to time by the Government of India. The present Conservator is a military man, and, while he draws a

consolidated salary, is as regards pension and furlough under Military rules. All the other officers of the Department are under the Uncovenanted Service Rules.

(3) The technical requirements of the Department, and the professional attainments essential for efficient service in its various branches.

III.—For the Controlling Staff these cannot be too high. The task of selecting lands to be permanently placed on the list of State Forests; of settling rights and privileges; of demarcating the forests; of protecting them from fire; of introducing a system of transport and sale of forest produce; of opening out roads on a system which admits of regular expansion; of organizing the Department, and of establishing protection has in Berar, as elsewhere, been well begun and well carried on for years. The administration of the forests has been hitherto almost entirely in the hands of men who are not what is technically called "trained"—that is, who have not gone through a two years' course when youths in some of the Continental forests. But the men who have till now administered the Department have had years of hard labour and daily training in their work, and as they gradually drop out of the lists by retirement can feel that they hand over, in good condition and greatly improved, a valuable public property, which when first made over to them was fast deteriorating and little cared for. During the last 14 years men who have been "trained" for the Department have been sent out annually, and now make up nearly one-half of the Controlling Staff in the whole Department under the Government of India. As a body they have justified the expectations formed of them, and some of them are now Conservators or Officiating Conservators. The work in the forests, apart from their protection and administration, now demands knowledge of a more special and technical nature than has hitherto sufficed. Working plans to provide at one and the same time for the regular and systematic outturn of produce and the improvement of the forest have to be framed. These must be based on data, to collect which requires trained observation; and the application of these data and the general principles to be deduced therefrom demand a scientific Forest training. A good working knowledge of Botany and of the broad facts and principles of Vegetable Physiology; acquaintance with the diseases of trees and their causes, and of the various insects that injure them, whether as trees or timber; special knowledge which can detect the properties of vegetable growths, and show how many now wasted forest products may be utilized; a knowledge of soils, their formation and influence on the growth of trees, and a knowledge of road-making are all technical requirements, which should be more common among the officers of the Department than they are at present. It follows then that the course of training to produce such men must take some time, and presupposes a good general education with particular attention paid to Mathematics, Chemistry, and Natural Science. The theory, and perhaps a little of the practice, of the art of Forestry, together with Chemistry, Geology, &c., may be learned in England; but every officer in the Indian Forest Department should, after arrival in India, be required to pass 18 months at the Dehra Dun Forest School, and there be taught what is wanted for the management of a Forest in India—not only the pine, fir, and oak forests of the Himalayas, but also those in the Siwaliks and in the plains. He should also, while there, be put through a thorough course of Forest accounts and returns, and be able to keep them himself. This technical training is required for all and each of the Controlling Staff; for the seniors will have to judge of and pass the work of their juniors, and then submit it to their several Governments for adoption; and the juniors will first have to do the work, and will in course of time rise to be seniors.

IV.—*For Sub-Assistant Conservators*, the course of training at the Dehra Dun Forest School affords a good basis; but it should be raised to a higher level; and as the staff of the school is strengthened, both numerically and in special attainments, should teach up to the standard, as in England, for the Controlling Staff, and should eventually turn out men intended for that Staff at once. The position of a Sub-Assistant Conservator, raised considerably as regards pay, should then be the goal to which Rangers may look to rise after long and approved service.

V.—*For Rangers*, the curriculum at the Forest School, Dehra Dun, as revised by the Forest Conference of October 1886, provides all that is required at present.

VI.—*For Foresters*, no change is necessary now, care being always taken to have a certain proportion of them in training to fill up vacancies among the Rangers.

(4) The classes of the community who seek to be employed in the Department, and the comparative capacity of each for rendering efficient service therein.

VII.—The classes who seek to be employed in the Department are—1st, Europeans; 2nd, Eurasians; 3rd, Natives of India: the word Natives being here used in its common sense, not the official definition of the word.

VIII.—For the Controlling Staff, Europeans are undoubtedly the best, and, if trained properly, must be for years to come in every way the best officers to hold charge of Forest Divisions. But there are certain Circles where, owing to peculiar and local circumstances, Natives who have been through the Dehra Dun Forest School, and who can be trusted as honest and sober and able to manage their subordinates, can well replace Europeans. Berar is such a circle. The forests in the Melghât, for a generation to come at least, ought to be under the care of as good a trained European Officer as can be had; and to replace him, when necessary, a second good European should be kept in one of the districts in Berar. But the other five districts can be managed by Native Officers under the Deputy Commissioners, and guided in all technical matters by the Conservator. I have had working experience in other Provinces—Mysore, the Punjab, and the School Circle. I wish to guard myself

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against any supposition that my statements regarding Berar in any way apply to the Punjab or to the School Circle.

The salaries given to officers of the Controlling Staff are not high enough to tempt Natives of India to travel to England, and there go through a course of training to fit them for the Controlling Staff; but should any Native or any Eurasian do so, and should he be also an honest, capable man, with good manners, I see no reason why he should not prove himself a thoroughly good Forest Officer on his return to India. But I hold that the highest posts in the Department—those of administration—should always be held by Englishmen. It is right and proper, as well as necessary, that they should in India be at the head of all Departments.

IX.—For the class of Sub-Assistant Conservators as now constituted, I think that Europeans possessing sufficient strength of character to withstand the peculiar temptations which assail men who are for months isolated from their natural comrades furnish as good a source of supply as any. But while such Europeans or Eurasians may be employed when they can be had, the bulk of the Sub-Assistant Conservator's class should be Natives who have passed successfully through the Dehra Dun Forest School and been appointed direct as Sub-Assistants, or who may gain that rank by good service as Rangers. But I hold that the Indian Forest Schools should gradually raise their standards, and when they are capable of training men for the Controlling Staff, a fixed proportion of places being reserved for Englishmen, the rest of the posts in the Controlling Staff might be thrown open to all classes—Europeans Eurasians, and Natives—who can pass successfully through the School.

X.—I have already said (see paragraphs V and VI) what I think to be necessary for the training of Rangers and Foresters. A good European Ranger is a most useful officer; but, as a class, I think that Natives after training are the best men for Rangers and Foresters; and gradually the pay of these two classes should be raised and their status improved, so that really good men may be more easily attracted to the Department. The life is hard, involves, especially during the fire season, constant exposure, sleeping night after night in the open, and is unhealthy. My experience leads me to prefer Natives as Rangers and Foresters.

XI.—My experience of Berar and other Provinces is that, *as a rule*, the Maratha Brahman is the worst man for out-door forest work that I have yet seen: he is pre-eminently an office man and a lover of town. The next worst class in Berar is the Kunbi or ryot: he is an easy-going fellow with little education. The best men for Rangers and foresters, and I would also add for Native Sub-Assistant Conservators, are men from the Punjab, Oudh, and the North-West Provinces. They are bold, hardy men, and most of the best men in the Department are from the countries I have named. They also make far and away the best Forest Guards. The Berar Mahomedan also makes a good Guard and a good Forester, and when sufficiently educated is capable of doing good work in the higher ranks.

(5) The existing organization and constitution of the Department.

XII.—I put up the return in the prescribed form, pointing out that I have not entered in it the information regarding Guards and Karkuns. The letter I am answering reached me on the 4th instant with the request that my answer might be in your office on the 10th. I do not (see Answer I) appoint the Guards, and there is no time for me to get the information in from the six districts. A revised form will follow.

XIII.—In answering these questions, I have found it necessary to write somewhat fully, but I hope what I have said will not be considered irrelevant in any way.

Existing Organization and Constitution of the Forest Department, Berars.

1	2	3	4						
			NUMBER OF APPOINTMENTS IN EACH CLASS OR GRADE NOW HELD BY						
			1	2	3	4			
						NATIVES OF INDIA.			
Department.	Total number of gazetted appointments or other appointments not being purely clerical, of salaries of Rs. 100 and upwards.	Distribution of the gazetted appointments or other appointments sanctioned in column 2 amongst classes and grades, with rate of pay attached to each.	Europeans not domiciled in India.	Europeans domiciled in India.	Eurasians.	(a) Hindus.	(b) Mahomedans.	(c) Others.	(d) Total.
Forest.	Gazetted—8	1 Conservator, 3rd grade, and officiating 2nd grade : pay Rs. 1,250.	1	...	...	...	...	...	...
		2 Deputy Conservators, 4th grade : pay Rs. 550 each.	2	...	...	...	...	...	...
		1 Assistant Conservator and Officiating Deputy Conservator, 4th grade : pay Rs. 550.	1	...	...	...	...	...	...
		1 Assistant Conservator, officiating 1st grade : pay Rs. 450	1	...	...	...	...	...	...
		2 Sub-Assistant Conservators : pay Rs. 200 each.	...	...	...	1	1	...	2
	Non-gazetted—1.	1 Probationary Sub-Assistant Conservator: pay Rs. 150.	...	...	...	1	...	...	1
		1 Forest Ranger @ Rs. 100	...	...	...	1	...	...	1

G. J. VANSOMEREN, *Lieut.-Colonel,*

Conservator of Forests.

Section III.—Sittings at Calcutta.

Witness No. I—*31st March 1887.*

Examination of H. H. Davis, Esq., Deputy Conservator of Forests.

The *President.*

Where were you educated ?—At the Liverpool Collegiate Institution. I received my technical education in this country. I was appointed to the Forest Department in 1868 after having gone through a course of practical instruction in Forestry at Nancy, in France. I had previously had some instruction in India.

When you were appointed, the practice was, I believe, for the Secretary of State to make the appointments to this Department ?—Yes, and the men were sent out under covenant.

Have you seen a good deal of the work of the men so appointed ?—Yes; I have had a good many under me. They have done very well indeed, and are thoroughly competent Foresters. We have a School of Forestry at Dehra Dun. I am not acquainted with the course of study pursued at that School. I have had men, both Europeans and Natives, sent to me from there, and of their class they turned out very fair specimens.

Are they as well educated as regards technical instruction as the men you get out from England ?—I think not.

In what grade do the men from Dehra Dun enter the Service—as Foresters and Rangers or as Sub-Assistant Conservators ?—They are divided into two classes—those who hold a Ranger's certificate, and those who hold a Forester's certificate. Education is given in the School gratis to men in the Department, and they receive pay while at School corresponding to their pay in the Division from which they are sent.

What extent of country does a Forest Range include ?—It varies very much according to the Division. In Darjeeling it covers rather a small area. In the plains it is larger. The Darjeeling Division at present consists of five Ranges, embracing 102 square miles. There are four Ranges in the Teesta Division, which is partly hills and partly plains, and extends to 250 square miles of forest land. The reserved portion of the Sunderbans is 1,581 square miles, and is divided into three Ranges; but that Division is worked by river, and is an exceptional instance.

What is your opinion of Natives as Forest Officers ?—That they are not suited to the work. They do not care for it, and physically they are not fit for it. The roughing they have to undergo is too much for them. In a place like Chittagong or the Sunderbans, where there is much river work, they are not averse to the work, as it is comparatively easy; but in places like Orissa and Chota Nagpur, it is very difficult to get them; in fact, I have had vacancies amongst the Forest Rangers for some time.

The *President*—contd.

How many Ranges are under the supervision of each Assistant ?—A Division is generally divided into Sub-divisions. In Orissa we have two Sub-divisions, with three and four Ranges respectively.

With whom does the pecuniary responsibility of working the Ranges lie ?—With the Divisional Officer. He is called Deputy or Assistant Conservator. The rates are sanctioned by the Conservator. The plan of operations is submitted every year to him. This explains the works which are comtemplated, and suggests the rates to be charged by the Department for timber and fuel during the ensuing year. I am now speaking of the Reserved Forests. If it is a Protected Forest, the Government decides at what rates licenses should be granted. A Reserved Forest is one in which the property entirely belongs to, or has been acquired by, the Crown: a Protected Forest is one in which the rights are not settled.

Do you consider that Europeans born in this country are better fitted for the work than Natives ?—Some of them that come from the Rurki College, and eventually get trained at Dehra Dun, are about as good as those who come out from England.

Would it be cheaper to employ these men—I mean would you pay them less ?—Yes.

You think that such men, if educated at a Hill School and sent to Rurki, and then to Dehra Dun, would be good enough for the work ?—Yes; the technical instruction at Dehra Dun is given by men who have, all of them, gone through a course of Forestry on the Continent.

The Hon'ble Mr. *Quinton.*

Do your remarks apply to Eurasians as well as Europeans ?—Not to the same extent, taking the average of Eurasians.

WITNESS No. II—*31st March 1887.*

Examination of E. G. CHESTER, Esq., Deputy Conservator of Forests.

The *President.*

Where were you educated?—I was born in England and educated at Bedford School. I received my technical training at Nancy, in France. I was appointed to the Forest Department by the Secretary of State. I came to this country in 1876. I took up my first appointment in Chittagong. I have also served in the Darjeeling District.

Have you had any experience of the men who have been trained at the Dehra Dun School of Forestry?—Yes; I have known two or three of them.

How do they do their work?—They are superior to the untrained men in some respects, but I do not consider them good men. I have only known them as Rangers or Foresters, and I do not consider that they make good Rangers or Foresters.

Have you had any experience of Rurki men who have been trained to Forestry in the Dehra Dun School?—I have only known one such man. He was sent to Dehra Dun for one or two months only, and did not go through the whole course of instruction. He was in the Superior Staff, and a good man.

What do you think about employing Asiatic Natives in the Department?—I have had very little experience, except of Bengalis, and, judging from the Bengali as a Ranger and Forester, I do not consider he would make an efficient officer in the Superior Service.

What are his defects?—He is not sufficiently energetic, and he dislikes roughing it and living out in the forests. As long as he is in the town, he is all right; but in the forests he is no good, and, moreover, I think he is wanting in honesty.

The *President*—contd.

To what do you attribute the dishonesty of which you speak?—To there being very great temptations to, and facilities for, dishonesty.

Are the Bengalis you employ men of a good class?—I do not know that they are of the worst class, but they are not a good class of men. At the same time, almost all the men we have now have passed the University Entrance Examination.

The Hon'ble Mr. *Quinton.*

Do you think that any of them are fit to be promoted to, or are likely to make good material for the Controlling Staff?—No.

The *President.*

I believe your Department is under special pension and furlough rules. Have you anything to say as regards them?—I think it is a great pity that the same favorable rules which are granted to the Public Works Department—I mean for Cooper's Hill men and the Secretary of State's Telegraph men—were not granted to us. We petitioned for the same consideration to be shown to us also, but we did not get it.

Why was it refused?—Our case was taken up with that of one or two other Departments, and the reply was that the Secretary of State did not see why the privileges granted to a special Department should be granted to others; but our argument is that they were granted, not to any special Department, but to a class of men. We are Covenanted men just as much as the Cooper's Hill men, and are selected by examination and have undergone special training.

Is there a good deal of sickness in your Division?—Yes, among both Europeans and Natives, owing to jungle fever and the variations of the temperature.

Sittings at Meerut (N.W.P.)

WITNESS No. III—*18th April 1887.*

Examination of EDWARD ELIAS FERNANDEZ, Esq., Assistant Conservator, 1st Grade, Superintendent of Working Plans, and Deputy Director of the School of Forestry at Dehra Dun.

The *President.*

I was born at Surat in the Bombay Presidency. My father was originally a native of Goa and my mother of Maçao. My father died when I was a child. My brother, who was Assistant to the Revenue Commissioner, caused me to be educated at a Missionary School at Poona, and subsequently at the Deccan College. At the end of 1868 I went to England to be prepared for the Civil Service. I read with Mr. Wren for nine months, and in 1870 I presented myself as a candidate at the examination for the Covenanted Civil Service. I failed by seven or eight places. I was about to enter the University of Cambridge, when the advertisement

The *President*—contd.

of the Secretary of State offering three appointments in the Forest Department to men who would undergo a training in France was brought to my notice. I applied for a nomination for admission to the competition, and, having obtained it, I secured the first place among 49 competitors. The outbreak of the Communists in Paris delayed the admission of the selected candidates to the French School, and we attended the Royal Agricultural College at Cirencester for five months; after a month's vacation we were sent to Nancy. I underwent a course of instruction for two years. In 1873 I arrived in India, and was posted as an Assistant

India.

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Section III.

E. E. Fernandez, Esq.

The *President*—contd.

Conservator of the 3rd grade to the Central Provinces. I remained there for seven years, during which period I attained to the 1st grade of Assistant Conservators, and in that grade I was transferred to the School Circle of the North-Western Provinces. In 1882, on the reorganization of the Department, I was appointed Superintendent of Working Plans, and a year afterwards I commenced officiating as Deputy Director of the School of Forestry, which post I now hold.

At present we do not profess to train men as Assistant Conservators, although some of our former pupils have held such charges. We educate two classes of officers—Probationary Sub-Assistants and Rangers. The Probationary Sub-Assistants enter the School on the nomination of the Local Governments; these men are principally domiciled Europeans and Eurasians, though there have also been Asiatic Natives. They should undergo a probation of one year in the Forest Department of their own Provinces before they join the School; but this is not always insisted on. They receive, some of them, Rs. 150 per mensem from the State—the majority Rs. 100 per mensem, —and they also receive travelling allowances when in camp. I believe these salaries were offered to induce men to join the School, as it was thought that they could not otherwise be recruited; but of late we have had applications for admission from persons of the same social classes who are willing to attend the School without salary; and indeed we have already admitted such students, and two of them have completed their course and received appointments. Of these, one, the son of a domiciled European, will proceed to Madras; the other, the son of a Forest Officer, has been appointed to Burma. The Ranger class is composed (*a*) of men who have served for some years in the Forest as Rangers, and who receive from Rs. 50 to Rs. 100 per mensem; (*b*) of Foresters who have served in that capacity, and receive from Rs. 20 to Rs. 40 per mensem; and (*c*) of apprentices who receive from Rs. 15 to Rs. 20 per mensem. They are, as a rule, Natives, though very occasionally we have a domiciled European or Eurasian.

When the School was first opened, we established a class to educate such of the Deputy and Assistant Conservators of the Department as had not received technical training; but this was closed when all who were young enough to come had gone through the course. We also formerly examined the Sub-Assistant Conservators separately from the Rangers, and granted them a separate certificate; but we found that many of the Ranger class had received a better general education, and in the examinations showed greater ability in answering questions than the higher class. We consequently abolished the distinction in the certificates, and submitted all the members of both classes to one examination. The grade to which an officer is appointed is determined by the Local Government, and not by the School authorities. In the last examination the three students who obtained the highest marks were three B A.'s from the Mysore State; the fourth was a European F. A. of the Calcutta University. The students of both classes attend the same courses of lectures.

Recruiting of the Staff.

According to the duties they have to perform, the members of the Forest Department naturally

The *President*—contd.

group themselves into three well-defined classes, which are officially recognized and termed respectively—

I.—The Controlling Staff.
II.—The Executive Staff.
III.—The Protective Staff.

With the last we have nothing to do, as those from whom it is recruited must by reason of the small salaries paid to them be recruited from Natives of little education.

As regards the other two classes, although the distinction between them is well recognized by Government, nevertheless, owing to the inadequate strength of the first class of officers, members of the lower class are sometimes entrusted with controlling duties, when the charge (or "Division," as it is called) is not an important one. Moreover, officers of the superior class have, at the commencement of their career, to serve an apprenticeship in the duties of the lower class. The anomaly of occasionally giving Executive Officers controlling duties must, to some extent, disappear when the organization of the Department is fully developed.

Members of the Executive Staff look after small charges under the immediate supervision and direction of the officers of the Controlling Establishment. They are supposed to initiate nothing, but merely to carry out orders, most of which are in accordance with a well-defined routine; they have under their control the Protective Staff or inexperienced junior officers of their own class. During all, or the greater part of, the year they have their head-quarters in the forests which they administer, and they have therefore seldom to travel any great distance from a fixed residence. To perform executive duties efficiently requires primarily a strong physique, active habits, physical courage, sturdy honesty, and a certain moderate amount of general and special education combined with ordinary common sense. A sufficient number of Natives possess these qualifications, but equally good men will be found amongst domiciled Europeans and Eurasians. Comparing the pure Native with the two classes last mentioned, the former is very much easier to manage, and is a cheaper agency; on the other hand, the latter is generally more active and possesses greater force of character, and is, on the whole, more apt and practical. Indeed, in one sense the Native requires, in order to do as well as his European and Eurasian *confrères*, greater force of character that he may overcome the scant amount of respect usually accorded to Natives by Natives.

The lowest pay of the Executive Staff is only Rs. 50. A solitary life in the forests costs much more than town-life, and a man on Rs. 50 a month in the forests is really worse off than one leading a sedentary life in a town, and having a monthly income of Rs. 40. Considering this, and also the fact that Rangers rank with Inspectors of Police, I would fix the minimum pay of a Ranger at Rs. 60 a month, to which salary I would admit everyone who had served satisfactorily for one year as a Probationary Ranger at Rs. 40 per mensem. The highest salary of the Executive grade is Rs. 250.

The *President*—contd.

The pay of this class and the chances of promotion are insufficient to attract to or retain in the Department the best stamp of Natives. I do not mean Natives of the highest education, but Natives of sufficiently liberal education, and who are accustomed to an out-of-door life. Such men would probably be attracted by salaries ranging from Rs. 60 to Rs. 500 if the grades were so distributed as to secure a fair flow of promotion.

I now come to the Controlling Staff. For efficient service therein, we require—

(i) A strong constitution.

(ii) Active habits and physique in a higher degree than that necessary in the case of the Executive Staff, charges being very much larger and less time being available for out-door work.

(iii) Ready cheerfulness in putting up with discomforts and privations.

(iv) A high general and special education. Forestry in India is, and for the next 50 years will be, to a great extent a matter of original research, for which a well-balanced, thoroughly disciplined scientific mind is a *sine qud non*. Forestry in India is especially difficult owing to the numerous species we have to deal with, the great divergences of soil and climate, and the very wide area over which many of the species are distributed. One and the same species has different habits and requirements according to the prevailing climate, soil, and other local conditions; hence it is extremely difficult to gradually eliminate all accidental characteristics until we come to those that are essential, and to explain how habits and requirements are modified by local circumstances.

(v) Force of character combined with tact. Our work is closely watched by the Executive Local Service, who in their anxiety to protect private rights from invasion occasionally regard the perfectly legitimate action of the Forest Officer as oppressive. A weak-minded Forest Officer may be afraid to insist on the rights of the State even when the very existence of his forests is at stake.

(vi) A mind which is at once practical, fertile in resource, and capable of combining means to ends is absolutely essential to the efficiency of a superior Forest Officer. To take a single very common case. A competent man may overcome a forest fire before it has extended over a few acres, whereas an incompetent man may not be able to prevent it from spreading over several square miles.

(vii) Administrative ability. After the Civil Service, the Forest Department has more to do than any other with the general administration of the country. In the Central Provinces more than one-fifth of the area is under the Forest Department. Under the orders of the Chief Civil Officer, the Forest Officer often regulates the general working of the Village Forests.

(viii) Culture sufficiently liberal to entitle an officer to social equality with members of the governing (the Civil) service. Forest Conservancy often means the curtailment, and sometimes even the complete abolition of wasteful enjoyment. Without intimate social relations with the Civil Officers, it would often be impossible to convince them of the necessity of introducing these restrictions, and to win them over to, and keep them on, the side of Forest Conservancy. The possession of attributes (iv) and (v) will be of great help here.

In respect of (ii), (iii), and (v), men educated in Europe will generally be superior; and as regards (viii), a thoroughly European education is indispensable. If once the Department fell in social consideration, its efficiency would be irretrievably impaired; for it is essential that a great Department of the State should

The *President*—contd.

possess a status not lower than that of any of the other great Departments. Under the present system of recruiting in Europe, we get men from the very same social classes as supply candidates for the Civil Service; and the men themselves are in every respect as well educated and brought up as the latter, although as boys aversion to hard work may have prevented them from coming out to India as Civilians. Hence, recruiting in England cannot be done away with.

To what extent to recruit in England is the next question to consider. Since 1869, when the first regular batch of men began to come out, the average annual number of appointments made in India to the Controlling Staff has been just a fraction over 2, or about 20 per cent. of the total number of new appointments. In my opinion it would be a mistake to raise this percentage within any reasonable distance of time; two new India-made appointments every year to a staff consisting of less than 200 members ought to satisfy any reasonable being. To leaven the Department more strongly with appointments made in India would result in a deterioration of the Service.

Granting that two new appointments will be made every year in this country to the Controlling Staff, it will be necessary to insist on a very careful selection of the men. It will also be necessary to establish a Sub-Assistants' class at the Forest School at Dehra, and to restrict promotion to the Controlling Staff mainly to the men who have passed out of that class and have rendered at least two years' subsequent service of a kind deserving this special promotion. Admission to the class at the School should take place on nomination followed by competition. Each Local Government to nominate a number of candidates in proportion to its requirements.

In the case of Natives, I would limit the nomination to B. A.'s. This limitation may appear invidious; but the Native of India is so apt at cram, that his real knowledge is nearly always very much below the standard of the test which he has passed. I speak from an experience extending over 22 years. I have had in my class at the Forest School Natives who have passed the Calcutta F. A. Examination; and yet not only do they not possess sufficiently trained minds to follow my lectures, but they are also so deficient in English that they cannot often understand the full force of an ordinary sentence in that language.

Another reason for requiring a high standard of education for nomination is that the prospects of men joining the Department in India are not sufficiently good to attract Natives of a high class. As a rule, well-educated Natives object to the hard life and bad climate in the forests; they prefer sedentary occupations in a town or large village. They prefer becoming Pleaders, Tahsildars, Deputy Collectors, and Subordinate Judges. Unless we insisted on a high educational test, we should get inferior candidates. Moreover, the gaining of a University degree appears to have a considerable moral effect on the character of a Native. Not only does the possession of a degree indicate mental culture, but, speaking from my experience in the North-Western Provinces and Bombay, it also imparts better manners and a

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The *President*—contd.

higher moral tone. Personally I wish to see Natives in the upper grades of the Department, but they should be very carefully selected and subjected to probation. We must have no repetition of appointments such as were made in a few instances some years ago, the failure of which was almost inevitable. Among the Natives already in the Executive Staff, and with whom I have come into personal contact, I know of only two men who, I think, would be hereafter fit for promotion to the Controlling grade.

After nomination and selection by competition, the candidates must go through a fairly severe trial of physical endurance in the forests. A B. A. from Southern India, after spending four months at Dehra in the same house with more than half-a-dozen other Madrassi students, and without ever having stirred out of the town of Dehra, wrote to a newspaper of the hardships that men from Southern India must put up with if they come to Dehra. This same student, while we were marching, complained of intense hardships, when I myself thought that we were travelling in comparatively great comfort. We must get men who are uncomplaining, even when suffering privation. Caste restrictions are a great drawback to service in the Forests, and detract considerably from a man's efficiency. Important work gets put off or entirely shirked, because hunger or thirst, entirely preventible by freedom from such prejudices, cannot be endured. When I take my students with me into camp, difficulties frequently arise as to carriage, there being nearly always a separate servant to each student. Then, again, the observance of the pardah system compels a man either to keep his wife with his children at a distance from himself, and thus entertain a double establishment, or employ doolie-bearers, &c. In either case there is wasteful expense, unnecessary deprivation of home comforts, and consequent loss of efficiency.

Among the Natives who have worked under me in the Department, I have found the Mahomedans usually better Forest Officers than Hindus. Although they are less well educated, they have more force of character and endurance, and have fewer prejudices. I have, however, known a Maratha Brahman who was a most efficient officer, but he did not allow caste prejudices to interfere with his work. He was a man of fair education, and possessed some landed estates.

Organization of the Department.

At present the rules prescribing the special functions of the several grades are not strictly observed. Thus one and the same charge, involving the same responsibilities and duties, may be held indifferently by a Deputy Conservator or an Assistant Conservator; and in some Provinces even Sub-Assistant Conservators are given such charges. This is an anomaly.

If Sub-Assistants are capable of holding such charges, it is clearly a waste of money to give them to more highly paid men. Actually, however, the anomaly is due to an irregular distribution of work, so that some charges are very much easier than others. For instance, in the Central Provinces there are some divisions with an aggregate forest area of barely 500 square miles, while others comprise an aggregate area of several thousand square miles.

The *President*—concld.

The Forest Division should everywhere be a sufficiently large and important charge to require an officer of long and tried experience and high professional attainments. Neither Sub-Assistants nor Assistants not officiating as Deputy Conservators should ever have charge of Divisions any more than Deputy and Assistant Magistrates should have charge of Districts, or Sub-Engineers and Assistant Engineers of Public Works Divisions.

Wherever the Forest Officer is officially associated with the Civil Officer, each Forest Division should be co-extensive with a Civil District, except where the districts possess only limited areas under Forest administration, in which case two or even three districts might be lumped up into a single Forest charge. When the Department is thoroughly developed, each Civil Commissionership will probably require a separate Conservator; but at present a Conservator may be allotted to two or even three Commissionerships. The Conservator should be *ex-officio* adviser in Forest matters to the Commissioner, and one of the Conservators in each Province should, besides being chief Forest Officer, be also Secretary or Under-Secretary to Government. This organization has been already adopted in Burma, and is certainly a move in the right direction. The direction of Forest matters requires as much technical knowledge of its own kind as the direction of Public Works. Hitherto, while we have only been selecting and demarcating forests, the want of a professional Secretary has perhaps not been felt forcibly enough to warrant the establishment of a separate Secretariat; but the work is now sufficiently technical to require the presence of an expert with the Local Government.

I must bring to the notice of the Commission a circumstance which appears to me to have recently operated to the detriment of the Department, and to threaten greater detriment in the future. The competition in England attracts very many fewer candidates than it did formerly. I have stated that there were 49 competitors for three places when I was examined. There are now rarely more than 3 or 4 for each vacancy. I attribute this to the following causes. That the more favorable rules respecting pension have not been extended to this Department; that the prospects of promotion are less favorable than were originally looked for; that the Conservatorships are not sufficiently paid; and that the frequent changes in the value of the rupee render the sterling value of the pension altogether uncertain.

I have nothing more to add.

WITNESS No. IV—*18th March 1887.*

Examination of W. R. FISHER, Esq., B.A., Officiating Director of Forest School, Dehra Dun.

The *President.*

I obtained my appointment by competition in England, and proceeded to Nancy to study Forestry. I have served in the Forest Department in Assam, and was subsequently transferred to the North-West Provinces.

The Indian Officer has the very widest field for his energies. He must be extremely active, both on horse and on foot, and up to an advanced age.

Conservators are rarely appointed under 40 years of age, and have to be more active than Divisional Officers, as they have more ground to get over. The Punjab Conservatorship is an example where one officer supervises the forests and waste lands, including those of adjoining Native States, on the salary of a Joint Magistrate.

The Inspector General, who receives the pay of a Deputy Commissioner, is required to know all the forests in India, except Bombay and Madras; and Sir D. Brandis really did know them. Mr. Ribbentrop will soon do so. What ordinary Native remains active like this till the age of 60 as did Sir D. Brandis?

Then Forest Officers have now succeeded to the control of the waste lands of India which were formerly under the Covenanted Civil Service. Have Natives sufficient energy (moral and mental) and sufficient tact and public spirit to manage these valuable estates on the highest public grounds, and not to give away too freely rights and privileges in them to interested people? We find that Civilians, though actuated by the highest public spirit, have not been able to maintain Government interests in waste lands, and I could give you numerous instances, both in Assam and the North-West Provinces; and this weakness is due to their having strong interests in the cultivated tracts of country as opposed to the waste lands.

Valuable forests in Dehra Dun 20 years ago, and even more recently, were sold by the Board of Revenue of the North-West Provinces for less than a tenth part of the value of the timber on them, and this on allotment was promptly realized by the lucky grantees, while the land still remains uncultivated in several cases. The same ruinous disposal of forest lands in favor of cultivators apparently prevails still in the Bombay Presidency. It has ceased elsewhere in India, but in Ceylon and other colonies is in full progress, and the forests there are being recklessly destroyed. This because Civil Officers do not recognize the importance of forests, and desire to increase the land revenue and favor the cultivators, who like a free range over the forests. Even now in all Provinces in India forest produce is far too lavishly given to villagers, and privileges, such as unrestricted grazing, burning grants of soil, dead leaves, lopping trees, &c., are permitted which are inconsistent with the maintenance of the forests and with the future

The *President*—contd.

well-being of the villages. The Rab question (tree-lopping for manure) in Bombay is a case in point.

Our Department, being specially interested in the permanent maintenance of forests, has to resist this tendency, and can it be expected to do so successfully if Natives are largely admitted to the Controlling Staff?

Natives of fair education hate jungles and wish for Judicial and Police work, and consider it a great hardship to be out from morning till night in the forests. If they were in the Controlling Staff, there would be a tendency to leave the work too much to their subordinates.

The lower or Executive Staff of the Forest Department has been very corrupt, and when I went down to Meerut in 1882 to obtain candidates for Rangerships, the students of the High School there told me quite ingenuously that they heard that Forest Guards on Rs. 6 in our Forests made their Rs. 100 per mensem.

In those days there was no intermediate grade appointed in the Forests of the School Circle between the District Officer and the ignorant Foresters and Forest Guards.

Recently our greater efforts have been to improve the Executive Staff, and we have done very much in this direction chiefly owing to the training at the Dehra Dun Forest School. We must not, however, go too fast, and until a strong Executive Staff has been established all over India, it would be fatal to weaken the Controlling Staff.

As Forest Officers have to deal directly with Civilians in matters of police, justice, grazing, boundary disputes, roads, supply of timber to public departments, rights and privileges in forests, valuation of standing timber on waste lands, *shikar*, and many similar matters, it is essential that they should be men of as good general education as Civilians; otherwise their opinions will not be listened to, and they will become mere subordinates of District Magistrates; and, as I have shown before, those officers do not maintain the forests, but generally prefer the apparent interests of cultivators to a strong Forest policy, which years of experience on the Continent of Europe has proved to be a great public duty.

A really strong Forest Department, with officers of first rate general education, with the habits and manners of gentlemen and the greatest personal activity, and a first class professional education, is needed for the protection and improvement of the forests in India, quite as much now that the areas of forest land have been secured, as before, when this work had to be done; otherwise the forest area of India will rapidly deteriorate.

The Controlling Staff of the Forest Department has only just become a strong one, as now the men trained in Europe are getting high up in

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the Service and are replacing the old staff of men recruited from the old Indian Marine, Police, Army, &c., when it was necessary to get officers faster than they could be trained. Our trained Forest Officers have generally been educated at public or other large schools, and have been well trained in Nancy after a competitive examination in England.

Their only fault is that they went up too young for competition and before their general education had been sufficiently advanced, and the Nancy training was not scientific enough. These faults had been recognized, and the Cooper's Hill training will avoid them.

As regards activity, intelligence, and devotion to the public service, they cannot be surpassed, and the strides made in the revenue of this Circle and the great reduction of expenditure are, in my opinion, due to the exertion of these officers, all of whom in the School Circle are Nancy men. I append figures from my last annual report which support this statement, as previous to 1880-81 there was only one trained officer in the School Circle.

Besides the improvement in revenue and decrease in expenditure (about Rs. 25,000 of which is due to the Forest School being made a separate charge in 1885), the capital value of the forests has increased enormously owing to careful management, and this is the principal thing to expect when the previously overworked condition of the forests is considered. I have only had one Native subordinate in the upper grade of the Executive Staff, a Sub-Assistant Conservator on Rs. 200. He has gradually got into easy Native ways; and though he was promoted because of his active work in the Forest Survey, he has done nothing since to deserve praise, and was reduced by the North-West Provinces Government to the grade of Ranger on Rs. 150 for six months for putting his name to a fictitious report surrendering valuable sâl forests to a zemindar, prepared by the District Officer's Naib Tahsildar. This latter's services were dispensed with, but Government took a lenient view of the Forest Officer's fault, as he stated that he had signed the paper after the Naib Tahsildar had read another one, so that he thought he was signing a different document altogether. This pointed to great carelessness, and recent reports from his Divisional Officer confirm me in the opinion that he is not improving in intelligence or activity in the discharge of his duties, though he has committed no more indiscretions, and his character stands high for honesty. Colonel Van Someren, Conservator of Forests, Berar, could give very valuable evidence as to the Native management of Forests in Mysore.

The Dewan, in a public speech a few years ago, stated that, owing to the careful management of the British Government, he was able to increase

The *President*—concld.

the Forest surplus by nine lakhs of rupees; but he proceeded to cut down the forests until, I believe, the forests have greatly deteriorated from the magnificent inheritance British rule bequeathed to the State. Colonel Campbell Walker, Conservator of Forests, Madras, stated that the Mysore Forests are being rapidly ruined by Native agency. Nothing would be fairer than to get these officers' evidence on the treatment of forests by Native agency.

I put in my article on the Forest Service from the *Indian Forester*, in which my views are clearly stated. I also put in a rejoinder to it by the *Indian Agriculturist*, which shows great weakness of argument. Government has appointed Germans to organize our Department, because it wished to get the best-trained officers available.

Cooper's Hill is open to every one in the Empire, and instructing them does not cost Government a penny; and yet the *Indian Agriculturist* talks of vested interests when our Government really wished to get the best agency available for managing its Forests. I consider that the maintenance of the efficiency of the Controlling Staff of the Forest Department in India is too serious a matter to be trifled with.

It may be argued that on political grounds it is expedient to open our Department to Natives trained in India, and that efficiency may be sacrificed to expediency. There are less than 200 appointments in the Controlling Staff of the Forest Department. Natives want the appointments in the Civil Service, not the hard work of the Forest Department, and the surrender of these 200 appointments to them is a mere drop in the ocean.

What is really wanted is the extension of the Executive Staff with pay from Rs. 50 to Rs. 400, and a redistribution of the Controlling Staff, for which European training should be a *sine quâ non*; exceptional promotion of deserving Executive Officers trained in India being made from time to time. The Inspector General of Forests has a scheme for improving the training of Sub-Assistant Conservators. This will allow for a development of that class of very useful officers on salaries from Rs. 150 to Rs. 250 at present and to Rs. 400 as intended, and this is all that we ought to do at present.

We formerly tried to educate Sub-Assistants and Rangers together at Dehra Dun, but found that the former men were of the same class, and frequently of less general education than Rangers. This must, of course, be avoided in the new scheme. If possible, Major Bailey's evidence should be taken.

He has been three years at Nancy in charge of the students there, and knows what is wanted for our Department better than most men.

Extract from Report of the School Circle, North-Western Provinces and Oudh, 1885-86, put in by Mr. W. R. Fisher.

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FINANCIAL RESULTS.

Receipts and Expenditure.

65. The financial results of the year under receipts and expenditure compare as follows with those of the four previous years:

Division.	Receipts.					Expenditure.				
	1881-82.	1882-83.	1883-84.	1884-85.	1885 86	1881 82.	1882-83.	1883-84.	1884-85.	1885-86.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Dehra Dun ...	64,068	53,271	64,913	81,798	99,651	31,489	44,929	54,830	56,367	55,654
Saharanpur ...	38,236	32,720	36,906	-35,831	42,010	15,188	20,476	25,228	26,198	23,209
Jaunsar	1,48,432	1,28,472	1,61,645	1,84,992	1,94,647	2,76,525	1,39,861	1,58,219	99,415	1,04,963
Direction	175	507	8,071	180	338	63,611	58,403	48,501	25,452	23,017
Total ...	2,50,911	2,14,970	2,71,565	3,02,801	3,36,649	3,86,813	2,63,669	2,86,778	2,07,132	2,06,843

Division.	Surplus.				
	1881-82.	1882-83.	1883 84.	1884 85.	1885-86
	Rs.	Rs.	Rs.	Rs.	Rs.
Dehra Dun	+ 32,579	+ 8,342	+ 10,113	+ 25,431	+ 44,000
Saharanpur	+ 23,048	+ 12,241	+ 15,678	+ 9,633	+ 18,801
Jaunsar	—1,28,093	—11,389	+ 3,426	+ 85,577	+ 89,684
Direction	—63,436	—57,879	—40,430	—25,272	—22,679
Total ..	—1,35,902	—48,699	—15,213	+ 95,369	+ 1,29,806

Sittings at Lahore.

WITNESS No. V—*25th April 1887.*

Examination of B. H. BADEN-POWELL, Esq., C.S., C.I.E., Judge of the Chief Court, Punjab.

B. H. Baden-Powell, Esq.

The *President.*

From 1869 to 1879 I was in charge of the Forest Department in the Punjab. I was appointed to that office in order to organize the Department, and to endeavour to determine what areas might suitably be preserved as Forest estates, after consulting about them with the Civil Officers, and after inspecting and considering the circumstances of the forests and the easements to which neighbouring proprietors might be entitled in lands deemed suitable for Forest management. When I had accomplished these duties, as far as circumstances permitted, I was retransferred to the Executive Branch of the Civil Service, and the charge of the Forests devolved on the Forest Department. When I joined the Department there were no reserved tracts, or forests under Forest Law. These I had gradually to propose for demarcation. I was consulted in the preparation

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of the Forest Act of 1878. I prepared the Burma Act (XIX of 1881), and was consulted as to the preparation of the Forest Act for Madras. The constitution of the Forest Department as laid down in the Code is, in my judgment, as good as it possibly can be. There are certain rules relating to pay and pension which I should like to see altered; but, as far as the organization of the Department is concerned, it is as good as it possibly could be. It is based upon the division of Forest estates into convenient sized groups, varying in size according to the value of the contents of the degree of forest cultivation of those tracts; and a Native Officer, called a Forest Ranger, is in charge. Under him are a number of persons called Forest Guards, whose duties are protective. It is highly objectionable that any Forest Guard whatever should be paid less than Rs. 7 a month. To pay him less is to invite him to live upon the people. I wish also to say that, in my opinion, old soldiers of the Indian Army would, as a rule, form the best possible Forest Guards. I should like to see two grades of Forest Guards—one on Rs. 10 and the other on Rs. 7; but no one should draw less than Rs. 7. The system I would introduce would be very much the same as that which governs the appointment of the lower grades of Forest Guards in France.

And with regard to the superior officers?—The great difficulty with them is, of course, to secure a proper system of training. It is essential in the present state of Forest matters, and will be increasingly so as forests grow in value, that all the superior staff of officers should be professionally trained. In order to secure men of that class, I consider that the present pay is certainly inadequate; but, above all, I consider that the pension rules allowed to Forest Officers are a scandal to a civilized Government. I use that phrase deliberately, considering the desirability of securing gentlemen of high moral and social tone, and with the proper professional qualifications, and considering also the risks to health to which they are constantly exposed owing to the unhealthy nature of the forest climate in Burma, Madras, some parts of Bengal, and the hotter districts of the Punjab and the North-West Provinces and the Central Provinces. Not only is the pension unsuitable in amount, but to require an officer to serve and to reside in forest districts for 30 years, and sometimes more (in cases where officers began service very young), is really monstrous. Not only so, but the lowest *fair* rate of pension attainable is so on conditions which it is practically impossible that a majority even of deserving officers can attain. The Conservatorships (above Rs. 1,000) are relatively so few that *all* officers have no chance of getting one.

Has there been any abnormal mortality among Forest Officers?—I am not prepared with statistics, but my impression is that the death-rate has been very high. Statistics have been collected on the subject.

Do you consider that such a training as is necessary to secure a good Forest Officer in the superior grades can be obtained at present in India?—Certainly not for the Controlling or Superior Staff.

The *President*—contd.

Do you consider that such a training could be provided by the Indian Government at a cost which would justify them in providing it, or would it be more economical to the Indian Government to secure its superior officers from the training schools of Europe?—I do not think it would be impossible ultimately to establish a very high class Forest School in India; but I think that for some years yet to come it will be found most economical to recruit the men we want for the superior appointments from men trained in Europe without interfering with the very valuable work which is being carried on in India, *viz.*, the training of Forest Rangers at Dehra Dun.

Would it greatly increase the cost of the Dehra Dun College to extend its operations to a higher class of officers than it at present undertakes to educate?—Certainly; you would require a much larger Professional Staff for giving scientific training in Botany, Chemistry, and also Professors of Technical Forestry: for instance, Professors of Forest management, the cultivation and rearing of forests, and the art of making working plans, or schemes of management; and all those persons would have to be induced to come from Europe; and you would require costly apparatus as well.

Do you think the number of Natives (in the statutory sense) who would apply, and would be suitable for appointments in the Forest Service, is at present so great as to justify the State in going to the expense of opening a school of the character you say would be required?—I do not think so. I do not think the time has anything like come for that, and in any case it could only be done very gradually by extending the scope of the Dehra Dun School.

Is it desirable to promote Forest Rangers to the Superior Service either as a rule or in exceptional cases?—In extremely exceptional cases, I see nothing to prevent it; but I have never yet seen a Native Officer whom I would entrust with the control of a Forest Division. I have seen excellent Native Forest Officers, but they all required to be supervised.

I believe Sub-Assistants are recruited in India?—Yes; but that is an appointment which has no real place in the regular service. A Sub-Assistant is only a sort of slightly better paid Ranger, or a sort of Aide-de-Camp to the Divisional Officer.

Would you in any case promote Sub-Assistants to be Divisional Officers?—Certainly, when they were fit for such promotion.

Speaking from your own observation, both as a Civil and a Forest Officer, do you think there is any substantial number of educated Natives who at the present day would be anxious to secure Forest appointments?—I think a number of them would be quite willing to accept the post of Forest Ranger. I believe the Forest School is very well kept up.

Would they be suitable for the superior grades of the Service?—I have never met any Native whom I thought within even measurable distance of being a Conservator or even a Deputy Conservator.

Do you think there are many educated Natives who would care to live the life of exposure and hardship which is entailed on officers holding those appointments?—I should say that if they existed,

The *President*—concld.

they were very exceptional cases. My opinion is that what is called the educated Native of the present day would not, as a class, desire or be competent physically to discharge the duties of a Controlling Forest Officer; but amongst the more manly races of this part of India, as education advances, we may look perhaps for a few of such men. They would have to pass through the grade of Forest Ranger, and in that they would be fairly tested as to what they were fit for.

I understand you would not lay down any rule prohibiting the employment of Natives in the Department, but you would insist on their undergoing such a course of education and possessing such physical qualifications as would ensure your getting efficient officers?—Yes; and I would not allow any Native to be appointed to the upper grades of the Service, under any conditions whatever, who had not shown his fitness to manage a Forest Range by the exhibition of such qualities as self-reliance, activity, power of controlling his subordinates, tact in dealing with other officials, and self-respect. I am altogether averse to the idea of taking a young Native gentleman who has taken a University degree and happens to be of good family, and pitchforking him at once into a Conservatorship or Assistant Conservatorship.

Have you ever, in the course of your Forest administration, experienced any difficulty owing to the castes of Natives under you?—No; in this Province I have not come across any difficulty of that kind.

When you were in charge of a Forest, I suppose you had a considerable Native staff under you?—Yes, in the lower grades; not above the grade of Ranger.

Major *Bailey*.

Do you consider the present pay and prospects of Rangers are sufficient?—A good Forest Ranger may always look to be appointed Sub-Assistant Conservator. I would myself prefer to see the post of Sub-Assistant Conservator abolished and the grade of Forest Ranger going up to Rs. 250, or even higher. I quite agree that having regard to the duties of Forest Ranger, the pay of that post should be such as would attract the

Major *Bailey*—contd.

best men we can get to the Subordinate Service. I have always regarded the post of Sub-Assistant as merely a superior grade of Forest Ranger, just as what is called a "Forester" (below the Forest Ranger) is merely a superior grade of Forest Guard. I do not consider that the present pay of the Forest Rangers is sufficient—or at any rate will long remain so—to attract the most desirable class of men to the Department.

The *President*.

Do you know whether any of the present class of Rangers have ever yielded to temptation?—We have had no proved cases of dishonesty, but of course when persons of that class are inadequately paid they live upon the people; they take presents of grass and milk from the people in return for not making their lives a burden to them, if not for rendering them positive illicit services. They have great opportunities for that sort of thing. I would not have any Europeans in the Forest Ranger's grade. My experience of such men is that they are always men of a low class, and quite uneducated. We have had several gardeners and such like out from England experimentally, and every man of them I have known in this Province has either turned out a drunkard, or had to be sent out of the country. I do not consider that domiciled Europeans are likely to make as efficient Rangers as Natives do; but if they are content to begin on the same terms, I would not exclude them. It must, however, be remembered that a salary of Rs. 100 to a Native is equal to Rs. 200 to a European or a person living as a European.

How does the pay of the Forest Guards compare with the pay of the Police?—I think the pay of the Local Police is still discreditably low also. No person ought to be appointed to that position on less than Rs. 7 a month. The Forest Guard is the Forest Policeman; and I think, on the whole, he is worse paid than the regular Policeman.

I omitted to say in respect of pensions that one great objection was that the attainment of a rate of pension on which a man could live fairly was dependent on his attaining a salary of Rs. 1,000, and that the scale of Forest appointments was so arranged that a very large number of men could not *possibly* attain that rate of pay so as to qualify.

WITNESS No. VI—*25th April 1887*.

Examination of COLONEL E. G. WACE, Second Financial Commissioner, Punjab.

The Hon'ble Mr. *Quinton*.

I believe you have control of the Forest Department of this Presidency?—Yes.

Had you any experience of Forest administration before you became Financial Commissioner?—Yes; I have been concerned with Forest settlements from the year 1868.

You have heard Mr. Baden-Powell's evidence as regards the qualifications of men to be admitted to the Department and the pay of the different

The Hon'ble Mr. *Quinton*—contd.

grades, and the efficiency of the different classes employed in the Department and the possibility of employing Natives to a greater extent in the higher grades, and do you agree with what he said?—I agree on the whole, but chiefly because the Forest work of the Province is yet in a very unsettled state. I think the Deputy and Assistant Conservators have very difficult questions of administration continually coming before them. The difficulty principally lies in the fact that the

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The Hon'ble Mr. *Quinton*—contd.

matters with which they are dealing are as yet in a very unformed condition, and at present I think that Natives could certainly not fill those positions.

Do you consider that Europe is the best field for getting the best and cheapest men, or do you think it possible for Government to train men in this country to fill those posts?—I cannot suggest any immediate change, but I should say that one of the greatest difficulties in Forest administration is the attempt to reduce everything to a continental standard. I think there is a want of patience or of appreciation of the differences between India and Europe. I think the best system of training a Forest Officer for India—given, of course, his previous proper selection from men of good moral and general education—is to let him see the best Forest work in India under the guidance of the best Forest Officers. I think there is just the same difficulty in teaching Indian Forestry from European experience as there would be in teaching Indian Agriculture from European Agriculture.

Do you consider that the professional training which candidates undergo at home might be exchanged for one in this country?—I think that as the Forest Department in India grows and establishes itself, and the right methods of Forest administration are worked out, we ought not to give our Indian Forest Officers their chief Forest training in Europe.

Do you think we are within measurable distance of being able to give men such a training as you suggest?—Certainly. I think that not merely in the Forest Department, but in all scientific Departments in India, the tendency is to underrate the value of local teaching and experience. We have a great continent to deal with, and it may be the case that we have as yet no forests like those which are the beautiful results of continuous Forestry in Europe. I have not suggested the entire discontinuance of European training, so far as it may be thought desirable; but I feel strongly the necessity of giving more training in the circumstances of Indian Forests.

Could that training be given by expanding the present Forest School at Dehra?—Certainly.

Has the objection suggested itself to you that you would have to get out skilled Professors from Europe for that purpose?—You can, of course, state a scheme which will involve very great expense. You can, if you like, always put your proposals in a form which will be administratively impracticable; but the Forest School at Dehra ought to be developed by all means within the capacity of what Government can afford.

There are certain technical requirements for the efficient management of the Department. Do you think those requirements would be as completely satisfied by the training you would give in the country?—I feel that I am getting into details on which I am not competent to express an opinion; but perhaps I may say, broadly, that I think every officer who is trained in the Forest Department in Europe should commence his service in India by a term of instruction in the Forest School; and I think the teaching of the Forest School should be much less school teaching than the taking

The Hon'ble Mr. *Quinton*—concld.

of the young men round to the best forests, and the practical teaching in those forests of the subjects with which they are to deal.

That would be the course of training in the Forest School as reconstituted?—Yes.

The *President*.

Your objection to the present system of training is that the Forest School teaches many things which ought to be taught at other scholastic institutions—the elements of Chemistry and Botany, for instance?—What I meant to say was that I think the bringing of a man from Europe with a high standard of teaching and a knowledge of very successful Forestry in Europe, and then introducing him to duties under totally different conditions, is to make him impatient of the limitations under which we have to work in India; and therefore it is better, before giving him a charge of his own, to take him round and let him see the difficulties which he will have to contend with; how far they are successfully met, and how far he must be content to proceed gradually to attain those high standards which have been attained in Europe. I certainly think it desirable to have a school here capable of teaching men in this country up to the highest standard of Forestry. That would be obtained by a very small development of the Dehra Dun School.

Do you think that the objection to the European trained officer remains throughout the continuance of his service, or does it not wear off in the course of service?—Of course it wears off with experience, but it is very often experience hardly gained; and I think there are men in the Forest Department of whom it is correct to say that they have not had the opportunities of seeing the best results of Indian Forestry.

If we were to extend the Forest School at Dehra to the degree you suggest, do you think we should get men of sufficiently good general education and physique to resort to it?—I think the answer to that question is speculative. It is a fact that the schools of this country are greatly improving both as regards teaching and the tone of the boys who frequent them. If you assume that the schools will never be better than they are now, then it is certain you must go to Europe for the higher offices in the Forest Department. I refer to schools for Europeans as well as for Natives.

The number of domiciled Europeans who receive a high education is comparatively limited at present. The number of Natives whose physique and energy is such as to fit them for service in this and other Departments which entail an out-door life is also very limited at present.

Our educational system has scarcely touched as yet those races in which energy principally resides?—I think we are touching them.

Do you think the time is not far distant when we shall get a sufficient supply of men of this class, and do you think the education of this class would keep pace with the development of the School at Dehra Dun? Suppose, for instance, it is decided to go to the expense of Rs. 30,000 a year to supply a complete training in Forestry at Dehra, do you think there would be enough pupils to justify such an expenditure?—I think it would be a dangerous

The *President*—contd.

thing to precipitate a change in the higher staff of the Forest Department. It would be a pure speculation to do so. On the other hand, I think the Forest School ought to be developed to a much higher condition.

Is there any reason why Natives should be debarred from appointments in the Controlling Service if they are found qualified to fill those appointments?—No; I think it important that the Executive Service of each district or division—speaking of the Revenue Divisions—should be, as far as possible, recruited locally. I think there are wide differences of conditions, personal habits, likes and dislikes between the races; for instance, between the races in the Delhi and Punjab Divisions. The resident of the Delhi Division is commonly exceedingly unacceptable to the resident of the Rawal-Pindi Division in official relations, and *vice versâ*.

Do you speak from experience of cases which have come before you?—It is of every-day experience in the distribution of Native officials. As a matter of fact, in current every-day work the interests of Government and the people are very much concerned in attention being paid to such strong differences of race and habits as exist between one end and the other of a large Province like the Punjab, and what I have said applies to the Forest not less than to other Departments.

The duties which the Forest Department have to perform are regarded perhaps with some jealousy by the people round about; for instance, the prohibition of grazing?—I do not think the principle followed in the enlistment of the inferior Forest establishment is at all different from the principle commonly observed in the enlistment of our Revenue establishment.

How is the principle reconciled with the employment of domiciled Europeans and Eurasians?—The Natives themselves are not impatient of the employment of those classes. Of course it is a fact that the European and Eurasian have great difficulty in living on the same pay as a Native.

As a matter of administrative expediency would you enlist domiciled Europeans and Eurasians in the lower grades, and let them rise to the higher grades of the Subordinate Service?—I think we make difficulties for ourselves by attempting to lay down rules in appointments of this kind. If a Eurasian comes and asks for an appointment of that nature, speaking from my experience as an Executive Officer, I should certainly not give it to him until I had satisfied myself that the conditions of the Service would be adequately responded to by him. Usually, however, Europeans and Eurasians will not place themselves in that position.

The Hon'ble Mr. *Quinton.*

If you bring in Europeans and Eurasians on Rs. 50, you stop the promotion of all the men below that grade?—That is certain. They ought to enter on the same pay as the others.

The *President.*

Do you agree with Mr. Powell that the pay of the upper grades of the Department is insufficient?—I consider the pay of Conservator is quite insufficient, and I am personally aware that he has to do double the amount of work which it is possible for him to undertake. Last year I found it my duty to tell the Government it was necessary to appoint a separate Conservator of Forests.

Can you say that the pay is insufficient to attract good men to the Department?—A good man in the Department will always do the work, but the pay is not fair. As regards pension, I do not agree with what Mr. Powell said for this reason: In all the Services the attempt is being made to throw upon Government a burden in respect of pensions which I am perfectly certain Government cannot bear. I am very favorably situated myself as regards pension; but I do not think the Government can possibly meet all the claims that are being made on it for pension. I think Government can be reasonably required to provide a fair pension such as will keep a man from want, and I think it ought to be provided at an early time of his service and free of all small rules which frequently tend to keep men out of their pensions. But a really sufficient provision for a man in the advanced years of his life ought, at least to the extent of half, to depend on his own contributions; and there will be no contentment either in the Forest or other Services in India until that principle is observed. I think at present the length of time required for service is onerous. I think a small pension may be given a man after about 25 years' service, which should not be large enough to encourage him to retire, but should be large enough to keep him from want if he must retire. Anything more than that should be provided for by the Government official himself in the shape of compulsory deductions from his pay placed in the Government funds at compound interest. As regards pay, I would not raise the pay of the grades from Deputy Conservator downwards to Assistant Conservators. I am very distinctly of opinion that no Conservator ought to be paid less than Rs. 1,500. This is a very arduous post, and one which imposes continuous expense on him. It is a post which makes him the head of a considerable body of officers whom he is continually obliged to entertain. I feel, and have felt for some time, that the Conservator of the Punjab is not fairly treated when he gets less than Rs. 1,500.

You would not increase the pay of the Deputy or Assistant Conservators?—No.

Do you consider that the Sub-Assistant Conservators are sufficiently paid?—It is such an irregular grade, so to speak, that I would rather say nothing.

Do you agree that Sub-Assistant Conservators are practically superior Forest Rangers?—Yes.

Do you consider that the pay of Forest Rangers is sufficient?—The fault in these Provinces lies rather in the distribution of the grades than in the amount of the pay.

You advocate having those men appointed for special localities?—Yes.

Is there no danger that by reason of their connection with a locality they may sacrifice the rights of Government to a certain extent?—We do not usually employ men actually at their own

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The *President*—contd.

homes; but there is a distinction between employing a Delhi man in Rawalpindi and employing a Rawalpindi man, for instance, in the Shahpur or Guzerat District.

You would not employ a man in the immediate neighbourhood of his own home, but you would take care to employ a man whose race and habits were not strange to the Natives among whom he was employed?—Yes.

Do you approve of the present system by which Sub-Assistants are selected, or would you have a competition for these appointments?—I agree entirely with what Mr. Powell said on that point. Nothing spoils the Native subordinate so much as bringing them into the Service at a higher grade. They are quite willing to come in as Rangers and work as Rangers.

You would always appoint men in this country to be Forest Rangers at first?—Yes.

Do you consider it advisable to admit domiciled Europeans and Eurasians to this branch of the Service?—I would not have any rule against it.

Practically you exclude them by compelling them to enter as Rangers in the lowest grade?—No; I think you certainly do not practically exclude them. I think there are cases in which fathers will be willing to help their sons through the lower grades. I quite agree that such cases would be few. I think that the Natives of the class which supplies our official ranks in the Punjab are very willing to take employment of this kind. They are very active, very energetic, and are willing to undergo considerable hardships in the early period of their service. I have no experience of Natives out of the Punjab.

You think that in the Punjab we should not require domiciled Europeans in the Service?—Yes.

Can you tell us whether any portion of the waste land in a district not reserved for waste has been made over to the Forest Officers in the Punjab?—The system here is that all Forests are in charge of the Deputy Commissioner. The Forest Officer is the Assistant of the Deputy Commissioner, and the Deputy Commissioner has instructions to make the same use of the Forest Officer in the matter of unforested waste that he does in the management of lands which have been forested. This waste land carries a great deal of wood which has to be husbanded and sold, and the grazing has to be looked after. When we assign waste for cultivation, the Forest Officer advises the Deputy Commissioner as to the selection of the land.

If application was made for waste land in the Punjab, and that land happened to be timbered, the Forest Officer would take care to ascertain the value of the timber?—Yes.

Memo. by—Colonel E. G. Wace.

As I left to-day the room where you examined me, a Forest Officer asked me whether in my replies on the question of pensions to Forest Officers of the higher grades I had given due consideration to the circumstances of officers already appointed to those grades, and some of whom have a considerable length of service to their credit.

The *President*—concld.

The evidence which I gave had reference rather to the system of pensions which I believe it is necessary to adopt in the claims of existing officers. Those I fully admit should be judged on a liberal interpretation of the existing system of pensions.

That system, so far as I understand it, is an exceedingly bad one. It does not give equal rewards to all the leading branches of the Civil Administration.

As each branch in turn comes into prominence and obtains influential support, more liberal conditions of pension are conceded to it. Other branches of the Service, sensible of rendering to the Government equally valuable service, seek similar treatment; and even if ultimately successful in their requests, they succeed only after much heartburning and many references.

If the present pension system continues, under which liberal pensions are assured after 30 or 25 years' service, it should be so widened as to place on even terms all officers who are recruited from England.

Even if not so widened permanently, some concessions of a moderate nature should be extended to such officers as those of the Forest Service who are already in the Service.

But in respect of the system as a permanency, I adhere to what I said this morning. It imposes a burden on the State which the State cannot bear. The pensions actually chargeable to the State should in all branches of the Service be limited to very moderate amounts; and every employé should be compelled to contribute to the Savings Banks a proportion of his salary from the day he enters the Service, to be held there at compound interest until he leaves the Service.

The small State pension should be claimable on a fairly early date, and should not increase with length of service.

For the increase of provision for later years, a State employé should be thrown back upon a well considered system of continuous saving, the results of which will be greater or less according as by good service he obtains or fails to obtain the higher appointments of the branch in which he serves.

I trouble you with this letter because, at the same time as I urge what I believe to be a necessary reform, I do not desire to appear insensible to the fair claims of officers who have entered the Service under different conditions.

WITNESS No. VII—*25th April 1887.*

Examination of W. COLDSTREAM, Esq., C.S., Officiating Commissioner of Lahore.

The Hon'ble Mr. *Quinton.*

I believe you have served all your time in the Punjab?—Yes.

What offices have you held?—The usual offices of Assistant Commissioner, Deputy Commissioner, and am now officiating as Commissioner of Lahore.

Have you had much experience of Forest administration?—I have not. My experience of Forest administration of any kind is very small.

The *President.*

Will you kindly tell us on what point you think you can assist our inquiry?—I am inclined to think that it is a mistake to appoint an officer from Europe to the charge of Forest work unless under very strict supervision other than departmental. I mean to say that his departmental superior is generally at a distance, and that he has not an opportunity of consulting his departmental superior, and sometimes not an opportunity of consulting the District Officer owing to his being away from head-quarters. I think his want of knowledge of the country, of its revenue systems, and the character of the Natives with whom he has to deal, and of the general conditions, social and physical, of the country handicap him very much. I have an idea that a Forest Officer might with advantage be trained for a year or two in the Settlement Department under a Settlement Officer or Deputy Commissioner, or in the routine of district work on the Revenue side. I think such a training would give him a decided advantage on first arrival. I generally agree with Colonel Wace that what is termed the continental education of Forest Officers may be apt to have the result of leading them to expect in India a high technical system of Forest administration, more technical than is necessitated by the requirements of the country.

Have you any opinion to offer with regard to the sufficiency or otherwise of the salaries of Forest Officers?—I think Rs. 1,000 is too little for the Conservator of a large Province. He ought not to get less than Rs. 1,200. As regards salaries generally, my opinion is that demand and supply must regulate that matter. With regard to scientific training as a requirement in this Department, I may say that I had a little of it before I came to India. I have a taste for science, and have attended to district arboriculture.

I think we are just on the threshold of the scientific training of Natives. I have not myself had an opportunity of intercourse to any considerable extent with Natives who have been thoroughly trained in Physical Science, who have imbibed the scientific spirit, and whose faculties of observation have been trained in the way those of scientific men are trained and developed in Europe. Whether such Natives exist—I mean in any number—I do not know. I know, however, that Government is endeavouring to train them, and I suppose that we shall have them some day.

In order to do that, would you increase the scope of the Forest School at Dehra?—Certainly.

The *President*—contd.

Would you allow the promotion of Natives in special cases from the Subordinate to the Controlling grades?—Having regard to political considerations generally, and especially at the present time, I think the employment of Europeans in the Controlling grades is very desirable. The Department is in its infancy; things have not yet crystallized. We do not know all about the conditions of Forestry; and especially is a European more likely to be successful at the present time in defining the rights and asserting the claims of Government, and in limiting the claims and defining the rights of Native landholders.

As a matter of fact, have we not at present a large number of Native Officers in the Executive Service to vindicate the rights of Government and control the rights of landholders?—Yes; but I think that just at the present time a European can do it with less friction.

As Deputy Commissioner you have had considerable executive experience?—Yes.

You have had Natives largely employed in subordination to you?—Yes.

In this part of the Province do you find that many Natives of education are fit to undertake arduous duties in the open air?—Certainly.*

Has education made great progress among the Tahsildar and Naib Tahsildar class of recent years?—I should say the general education of this class was increasing; but if you were to select young University graduates,† you would require to choose them very carefully. A good number of them would not have a taste for the work. I think the physical endurance of a Bengali gentleman is pretty good, and those who have a taste for the work would probably be quite up to the work as regards physical requirements. It is quite true that the demands upon our Revenue Officers have recently become much more severe, and perhaps the opportunity of observing whether men break down under such physical strain or not has not been fully afforded to us yet. I may say that I have not known a large proportion of men in the position of Tahsildar or Naib Tahsildar who have broken down under physical strain.

These I suppose belong to the class who do not take so freely to education as the inhabitants of cities?—We have a good many of the inhabitants of cities among that class now. I was for two years in Simla, where there is some Forest work going on. I did not see much of the work of Natives there.

Do you think we can get many Natives of the Delhi Division to go and live 150 miles from Simla?—Oh, yes.

* I mean such as occupy such positions as those of Deputy Collector, Tahsildar, and Naib Tahsildar.
† For service involving hard out-of-door work.

WITNESS No. VIII—*25th April 1887.*

Examination of F. O. LEMARCHAND, Esq., Deputy Conservator of Forests, Kangra.

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F. O. Lemarchand, Esq.
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The *President.*

Where were you born?—I was born in India and educated at Mr. Madox's school at Mussoorie. I was appointed to the Department in this country.

Have you any Natives subordinate to you?—One of my Sub-Assistant Conservators is a Native; he works very well. I have also a European Forest Ranger under me. He does very well. He was born in the country. I have always served in the Punjab. Some of the Native Forest Rangers I have had under me have not done well. As a rule, the Europeans have done well. I have only had one domiciled European under me. The Natives were men who had been trained at the Dehra School.

Are the Natives serving under you in the Department fit to be promoted to the Controlling grades of the Service?—Not at present.

The Hon'ble Mr. *Quinton.*

In what respect did Natives, who you say did not do well, fail?—They were not honest. One of them was actually dismissed for dishonesty.

Was their knowledge of Forestry sufficient?—No; they were quite untrained.

As regards energy, what do you think of the Natives under you?—The Europeans and the Natives I have under me are equally energetic and able to stand exposure.

Have you anything to say as regards pension?—I agree with Mr. Elliott as to the disadvantages under which the Department labours in respect to pensions.

The Hon'ble Mr. *Quinton*—contd.

May I say that during the time I held charge of the Lahore Division I had several of the trained Rangers from the Dehra School under me: these men have all done well; one of them, a non-commissioned officer, was sent to Jeypore on a high salary.

I would like to add to my evidence that I have been nearly 18 years in the Forest Department, and am now drawing only Rs. 550 a month, with no chance of promotion for many years, as the higher grades are filled by young men of my own age, who, owing to unfavorable pension and furlough rules, can neither retire nor go on furlough. I would like to see our prospects improved by making a greater number of Deputy Conservators of the Rs. 900 and Rs. 800 grades, and by at least one appointment of Deputy Conservator on over Rs. 1,000 a month, to qualify for the better pension allowances.

The duties of an Uncovenanted Deputy Conservator are precisely the same as those of the Covenanted Deputy Conservator, and the annual Administration Reports of the Punjab Forest Department show that the Uncovenanted Divisional Officers have done excellent work and have secured great praise from the head of the Department; yet our pension and furlough rules compare very unfavorably with the rules for the trained or Covenanted men. Our promotions, too, are slower than the majority of the Covenanted men who have gone up to the higher grades after far less service.

WITNESS No. IX—*27th April 1887.*

C. F. Elliott, Esq.
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Examination of C. F. ELLIOTT, Esq., Deputy Conservator of Forests, Multan Division, Punjab.

The *President.*

When did you enter the Department?—In 1868. I was educated in England and appointed in India by the Secretary of State. I am at present in charge of the Multan Division.

Had you attended any Continental Schools of Forestry before you came out?—No.

Have you any Natives under you whom you think are fit to be promoted to the Controlling Service of the Department?—I have none at present. Certainly, I do not think you could possibly appoint a man to the Controlling Branch unless he had been through the Dehra School, and the Natives I have under me are still quite young men; nor do I think the education given at the School is quite up to the standard required for the Controlling grades.

Since you entered the Department has the necessity for scientific training in a Forest Officer

The *President*—contd.

been very largely increased?—Yes. When I first joined the Department, there was comparatively speaking no scientific training required of an officer in the Department.

Are your Forest Rangers well educated?—The men we get from the Dehra School are. The old class of Rangers were quite deficient in education. The new men are certainly better as regards education, but they are not sufficiently well educated to take Controlling posts.

Are the Natives you get from the Dehra School sufficiently enduring?—I have had two under me, and they have done very well so far. They are quite young men, but it always seems to me that a Native breaks down sooner than a European.

Do you consider that the pay of Forest Rangers is sufficient?—If you are going to keep them as Rangers, I think it is.

The *President*—concld.

It is said that the distribution of the men in the grades is hardly sufficiently favorable?—It is quite good enough for the number of trained men we have got; but when we get more trained men, we ought to have better appointments for them. You cannot expect men to go through an expensive education and be content to remain always on small pay.

What class of men do you get for your Forest Guards now?—About the same class of men as you get as sepoys in the Police. They are less paid than the Police, and therefore I think the Police and the Army get the pick.

Major *Bailey*.

Do you consider that the men trained at Dehra have sufficiently good professional education for the duties of Rangers?—I think so.

Do you think the pay and prospects of Rangers are likely to induce a sufficient number of that class to offer themselves?—I think so.

Major *Bailey*—contd.

Have you anything to say about pension in your Department?—I wish to point out that at present there are virtually no appointments which would give us the higher grade pension. At present there is no officer in the Punjab Forest Department who is drawing pay sufficient to qualify him for the higher rate of pension. I should like to see an appointment established which would give us the possibility of qualifying for the higher grade of pension. The appointments of Conservators are so few that an ordinary Deputy Conservator cannot hope to obtain promotion to one of these appointments; and unless he does he cannot draw pension up to the full rate allowed to the Uncovenanted Officers. A Deputy Conservator's pay must be over Rs. 1,000 for him to be qualified for full pension. I think also that it is very hard that we should have to serve for 20 years—in any case it is 21 years in India—before we can get Rs. 4,000 a year pension.

WITNESS No. X—*25th April 1887*.

Examination of E. S. CARR, Esq., Deputy Conservator, Punjab.

E. S. Carr, Esq.

The *President*.

I believe you were appointed to the Department by the Secretary of State after competition?—Yes. I received my technical training at Nancy, in France. I have only visited the Dehra School once on business; but I am aware of the course of education pursued there.

Do you consider it sufficient for the purpose to which it is at present applied, *viz*, to the training of Forest Rangers and Sub-Assistant Conservators?—Certainly, I do.

Would you advocate the extending of that system so as to include training for the higher grades of the Department, or would you continue to depend upon European Schools for a supply of men for those grades?—I see no reason why the course of training imparted at the Dehra Dun School should not in course of time include the training of men in this country for the higher appointments. I believe it is desirable that men should, if possible, be trained in India, where their actual work lies. I have no experience of other parts of India beyond the Punjab.

What do you think of the capabilities of Natives for employment in the Forest Department?—I do not think they retain their strength and activity long enough. Their constitution does not last so long as the constitution of Europeans, and in the long run you will not find them so cheap.

What do you think of their aptitude for the work?—Up to the present moment I have never seen a Native who was fit to hold a Controlling appointment. My experience of them is, however, not very great. I only joined the Department in 1881.

Have you anything to say as regards the pension system in your Department?—I wish to point out that the pensions of men who, like myself, were appointed by the Secretary of State are not the same as those of similarly appointed men in other Departments. I consider that distinction an invidious one, and likely to affect the efficiency of this Department and the quality of men brought into it. Quite recently the other Departments to which I refer have been allowed certain more favorable rules which have been refused to us.

The *President*—contd.

The following is a statement of our case:

First steps taken to improve the prospects of pension of Uncovenanted Services.

1. As far back as 1874, it was generally held that the existing pension rules for the Uncovenanted Service (under which is the Forest Department) were inadequate, since such rules had originally been made for a class of men (mostly East Indians) very inferior in social and educational rank to those now almost entirely constituting some branches of the Service, and in that year the subject of their amelioration was taken up by Messrs. Brandis, Molesworth, and Cappel, who jointly drew up and submitted to the Government of India certain proposals in behalf of the Forest, Public Works, and Telegraph Departments.

These proposals were not accepted; and the Government of India in the Public Works Department suggested that they should be revised and brought forward at some future period.

The subject remained under consideration until 1879, but nothing came of it.

It was again taken up in 1882, when Mr. Brandis, Inspector General of Forests, prepared a memorandum, in which the whole question was fully considered, and he proposed—

(1) A new set of pension rules.
(2) The establishment of a Provident Fund

This memorandum was considered by the Government of India in connection with the

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The *President*—contd.

general question of the revision of the Uncovenanted Service Pension Rules, and has so far resulted in nothing.

Up to this point, the proposals had been made jointly for the Public Works, Telegraph, and Forest Departments.

2. Some time later on, however, the case of the Public Works Department was taken up separately and brought before the Government of India, with the result that a revised scale of pensions and the formation of a voluntary Provident Fund were sanctioned for that Department in Resolution No. 449, dated the 18th April 1884, and published in the *Gazette of India* of the 19th April 1884.

Better rules sanctioned for Public Works Department.

The *President*—contd.

The main points of these concessions were—

(*a*) A revised scale of ordinary pensions applicable *only* to officers under clauses I, II, and III (1) of Schedule B of the Civil Pension Code.

(*b*) A voluntary Provident Fund for the *whole* Public Works Department.

3. The accompanying comparative table shows the present pension rules in force for the Forest Department and the more favorable ones granted to Covenanted Officers of the Public Works and Telegraph Departments, and to which the men appointed by the Secretary of State to the Forest Department can justly claim to be admitted.

Comparative table of ordinary Uncovenanted Service Pension Rules, and the better rules granted to Public Works and Telegraph Departments.

Present Pension Rules in force for the Forest Department.			*Pension Rules granted to Covenanted men in the Departments of Public Works and Telegraphs.*			
Number of years' service.	180th parts of average emoluments.	Subject to limits of	Number of years' service.	180th parts of average emoluments	Subject to maxima of	
					Rs.	
10	40	Minimum Rs. 1,000; maximum Rs. 2,000 per annum.	10	60	1,000	On medical certificate.
11	44		11	63	1,400	
12	48		12	66	1,800	
13	59		13	69	2,200	
14	56		14	72	2,600	
			15	75		
			16	78	3,000	On medical certificate.
15 to 25	60	Maximum Rs. 3,000, or, if average emoluments do not exceed Rs. 12,000 a year, Rs. 2,000.	17	81		
			18	84		
			19	87		
			20 to 24	90	4,000	Without medical certificate.
25 to 30	90	Maximum Rs. 5,000, or, if average emoluments do not exceed Rs. 12,000 a year, Rs. 4,000.	25 and upwards	90	5,000	
Medical certificate dispensed with only after completion of 30 years' service.			With special additional pensions to those officers who have served for three years as Chief Engineers or Superintending Engineers of Rs. 2,000 and Rs. 1,000 respectively.			

The *President*—contd.

4. While the matter was being agitated on behalf of the Public Works Department, the Secretary of State's men of the Forest Department did not press their claims, considering themselves similarly situated to Covenanted Officers of the Public Works Department, and taking for granted that concessions given to one class of men in one Department would not be withheld from the same class of men in other Departments.

No claims entered by officers of the Forest Service at the time other Departments agitated.

That the Service was to all appearance justified in leaving itself in the hands of Government is clearly proved by the fact that on previous occasions all special privileges, such as—

(*a*) the counting of service for pension before the age of 22;
(*b*) the grant of two years' furlough after 8 years' service, and subsequently of 1 year for each period of 4 years' service;
(*c*) the counting of service for pension of certain periods passed on furlough;
(*d*) the concession of a pension on medical certificate after 10 instead of after 15 years' service

were granted, unasked and without exception, to all officers enumerated under Schedule B, clause VII of which includes "Officers of the Forest Department specially trained in Europe under Regulations made by the Secretary of State."

5. That an invidious exception should thus have been made when granting the recent special pension rules to the Public Works and Telegraph Departments is beyond comprehension, since it casts an unmerited slight on the Forest Service, and is an injustice to the members of that hardly-worked and important Revenue Department.

Unfair exception made of the Forest Department.

6. There are grounds for supposing that, when the new rules were granted to the Public Works Department, Her Majesty's then Secretary of State contemplated the extension of the rules to similarly appointed and similarly trained men in other Departments, and the subsequent extension of the concession to the Telegraph Department substantiates the supposition.

The authorities actually contemplated, when granting the boon to the Public Works Department, its extension to other Departments.

7. Passing over, however, what may have been the intention, the fact remained that the Forest Service was not included with the favored Departments, and it was thought that the Inspector General of Forests had only to represent to the Government of India that certain rules, applying to a class of men in one Department, should in justice, be granted to the same class in another not less important Department. To all appearance the concession was a foregone conclusion, and the application a mere formality.

Application for the better rules made as a matter of form, by Inspector General.

8. It so happened that similar action was taken about the same time by the Educational and Geological Survey Departments, and it would seem that the claims of the three Departments were considered together and

Application considered and disposed of conjointly with similar applications from Geological, Survey and Educational Departments.

The *President*—contd.

submitted in a single Despatch to the Secretary of State.

This may or may not have been unfortunate for the Forest Service, but it would have been more satisfactory had the claims of Departments, differing so widely in their scope and duties, been separately considered.

9. The Secretary of State's men of the Forest Department feel injured that belonging to a certain class, and, so far as status and training go, being co-equal with officers of the Public Works and Telegraph Departments, they should be suddenly and without just cause, condemned to inferior prospects, while hitherto they had been absolutely on the same level with them.

Grievance of men in the Forest Department briefly stated.

10. Leaving out of consideration the crushing and unanswerable assertion of supreme authority—"We will not"— the only arguments used as reasons for withholding the concession were:

Arguments that led to a refusal of the more favorable rules.

(1) Only a small section of the Forest Department is recruited from England.
(2) The existing rules are sufficient to secure the necessary supply of qualified officers.
(3) Economy forbids any increase to the burden of pensions.

11. With reference to (1), it cannot be denied that the percentage of trained men is annually increasing, and that eventually almost the entire staff will consist of Secretary of State's men.

How these arguments fail in weight.

To-day such men comprise, of the staff—

In Bengal	...	48 per cent.
„ Madras	...	52 „
„ Bombay	...	55 „

Regarding (2), it has only to be stated that last year twelve candidates appeared for five vacancies, whereas 10 to 15 years ago there were as many as twelve and sixteen applicants for each vacancy. Now that it is known that officers in training for the Forest Department are coming out to a Service inferior in prospects to the Public Works and Telegraphs, the competition must, as a matter of course, fall off, and at best the Service will only procure such men as are unable to qualify for the superior Departments.

In answer to (3), it has only to be pointed out that the concession involves an average annual expenditure of only Rs. 200 per man per annum, or Rs. 15,000 in all. Such a sum represents in many instances less than the difference between the mediocre or good management of the Forest property included in a single Divisional or Controlling charge.

12. The Secretary of State's refusal in his Despatch, dated 23rd July 1885, to concede the favorable rules was based on the grounds that—

Actual grounds for refusal given by Her Majesty's Secretary of State.

(1) The Council of the Governor General were not unanimous in its favor.

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(2) He could see no reason why privileges given for special reasons to a particular Department should be therefore granted to other Departments of an essentially different character.

Further elucidation and consideration of these grounds.

13. The want of unanimity in the Council of the Viceroy was in itself sufficient to bring forth the adverse decision of His Lordship; but it is highly probable that the Council were swayed by the arguments noted above, and which, when the Forest Service stands alone, can be fully answered.

It is precisely because the Secretary of State's men in the Forest Service came to India under similar conditions, have the same standing, and perform equally arduous and responsible duties that it is now claimed for them that they should enjoy the same prospects of pension as the Secretary of State's men of the Public Works and Telegraph Departments. The Forest Department, we would urge, it essentially of the same character as the other Departments, and should His Lordship only deign to reconsider the matter, he cannot fail to be convinced by the conclusive evidence that must come before him in this respect.

B.— Grounds for agitation.

Injustice.

14. The concession, as originally conceived, was undoubtedly intended not for a special Department, but for a special class—*viz.*, Secretary of State's men. Had it been otherwise, why was it not given to the whole Public Works Department as a body; and why was it at a later period, extended to the Telegraph Department?

If the concession involved no principle, we would ask, why were Rurki and other India-appointed men excepted?

We may fairly assume that a principle *was* involved, and that *that* principle carried with it nothing more nor less than the improvement of the pension prospects of all those men specially selected, trained, and covenanted by Her Majesty's Secretary of State.

Thus far the refusal to extend the favorable rules to the trained officers of the Forest Service seems a pure injustice to a small section of a well-defined class of men appointed direct by the Secretary of State.

Importance of Forest Department.

15. The Forest Department, although officered by a Controlling Staff numbering only 169, controls State properties covering 82,000 square miles:

	Square miles.
Reserved Forests ...	... 51,000
Protected „ ...	... 13,000
Other „ ...	... 18,000

Within the past ten years those estates have grown from 52,000 square miles to 82,000 square miles. The gross revenue has risen in the same period from Rs. 72,07,000 to Rs. 1,10,80,000, while the net surplus has increased from Rs. 29,73,000 to Rs. 42,92,000.

The *President*—contd.

The importance of keeping the organization of such a continually growing branch of the Administration up to its present, if not to a still higher, standard needs no demonstration; but it must be evident that any depreciation of the Service can only result in a falling-off in the *personnel* which joins it, and in a consequently less effective management.

The direct advantages of the forests of India can be best shown by what they yield in a single year for export and local use.

In 1885-86 the value of the outturn worked by direct Government agency was—

45,64,793 rupees worth of timber.
7,22,654 rupees worth of fuel.
33,441 rupees worth of bamboos.
60,704 rupees worth of sandal wood.
2,88,941 rupees worth of grass.
86,608 rupees worth of other minor produce.

Total Rs. 57,57,141

While purchasers removed from the forests—

15,32,392 rupees worth of timber.
8,83,983 rupees worth of fuel.
4,44,164 rupees worth of bamboos.
12,43,546 rupees worth of grass.
6,84,933 rupees worth of other minor produce.

Total Rs. 47,89,018

This yield is in most instances, only a fractional part of the capabilities of the forests; and as private and other lands become denuded, and the prosperity and style of living of the people improve, an ever-increasing demand must spring up, and finally absorb the entire possible yield of the State Forests.

The indirect advantages of permanent Forest estates, such as only the State can maintain, are not so easily measured; but they are generally now so well known and appreciated for a country with a climate like that obtaining in the greater part of the Indian Empire, that it is unnecessary to enumerate them here.

Social relations of Forest Officers.

16. Forest administration being now an integral part of the general administration of each district, the Forest Officer's relations with the Revenue and Judicial authorities have become of the most intimate kind. He himself often exercises Magisterial powers; he has business to transact with District and Railway Engineers and Military officials in cantonments, and with

The *President*—contd.

all these he has hitherto mixed on terms of social equality; and it is of the highest importance that he should continue to do so.

The exposure and hardships that the duties of a Forest Officer entail.

17. The duties of the Forest Officer compel him to lead a camp life prolonged to 6 or 8 months in the year, and that throughout the hottest weather, and not unfrequently extending into the rainy season. His work constantly takes him into the most malarious districts; and he only too often, suffers severely from jungle fever and other diseases incidental to his mode of life. He is mostly stationed in remote localities where he enjoys none of the relaxations and amenities of life that are more or less within the reach of other Civil Officers.

In this way the life of the Forest Officer compares unfavorably with that of all but an exceptionally few officers of the Public Works or Telegraph Departments.

That the exposure and risk to which a Forester is subjected are real is clear from the mortality of Forest Officers in Burma, returned in 1880 at a death-rate of 7·4 per annum.

Early retirement of Forest Officers advantageous to the State as well as to the individual.

18. It has been admitted on good authority that it is false economy to retain the services of, or not to facilitate the retirement of, a man whose constitution has been shattered by 20 years of forest life, and who has not attained in the meantime to high administrative office; and it is undoubtedly in the interests of Government that such a man should make way for a younger and more active successor with more vigour and a less impaired constitution.

Result of inferior prospects as regards pension on class of candidates for the Forest Department.

19. Now that candidates for the Service are trained at Cooper's Hill, together with those for the Public Works and Telegraph Departments, it is obvious that only such as fail to gain entry to the more favored Departments will fall back on the Forest Service. This must lead to a marked deterioration in the quality of Forest officers, and a consequent inferiority of the Department both as regards education and position. This would be little short of a disaster at a time when Forest Officers have just been more intimately connected in their work with District Officers; and any tendency to lower the standard of officer would be distinctly contradictory to the action taken in India, which has been to raise his position by demanding the more severe examinations in languages, law, and revenue, and by generally assimilating those examinations to the standards required of the Covenanted Civil Service.

The training given to subordinates in India enforces high efficiency in the Controlling Staff.

20. The establishment of a Forest School at Dehra Dun affording a high class of education to subordinates empirically implies the maintenance of a high standard of qualification in the Superior Staff recruited from Europe; without this, proper discipline and subordination will no longer continue.

The *President*—contd.

The fact that officers accepted service under existing rules does not militate against the reasonableness or justice of the claim to the more favorable pension rules.

21. The Uncovenanted Pension Rules now applicable were framed for a class of men, chiefly Natives recruited in India, and it has long been recognized that these rules are by no means adequate to the requirements of men whose homes are in the United Kingdom. It may be, moreover, held that the depreciation of the rupee has made a vast difference in the position of officers, and that rules, long ago recognized as inadequate, are now very much more so. The Forest Officer could reasonably expect that, weighed by these circumstances alone, some concession would be made to him, but now that liberal rules have been granted to his more fortunate contemporaries and comrades, with whom he has hitherto stood on terms of perfect equality, he feels that in common justice he has a right to be similarly treated.

Summary of grounds on which the Forest Service claims to be admitted to the more favorable pension rules granted to the Public Works and Telegraph Departments.

22. In short, the Secretary of State's men of the Forest Service claim admission to the more favorable pension rules granted to the Public Works Department on the following grounds:

(1) They cannot with justice be excluded from advantages granted to men of the same class, trained at the same school, and equally appointed under covenant with Her Majesty's Secretary of State.

(2) Her Majesty's Secretary of State contemplated, in granting the concession to the Public Works Department, its extension to similarly situated men in other Departments, of which the Forest Department can claim to be one.

(3) Trained and covenanted men, though numerically few, comprise half the Department.

(4) Existing rules are not conducive to the necessary supply of qualified candidates, or, if they have so far been sufficient, they will not continue to suffice when it becomes known that the pension prospects of the Forest Service are inferior to those of other Departments similarly recruited.

(5) The extra annual cost involved in the new rules would not exceed Rs. 15,000 to Rs. 20,000.

(6) The Forest Service in rank, status, duties, and prospects, hitherto the same as the more favored Departments, in no way differs from those Departments.

(7) The concession was not made to a special *Department*, but to a specially well-defined *class* of men, which includes the Covenanted Forest Officer.

(8) The importance of the Department as a whole should prevent the withholding of a concession, which is necessary to maintain its present status and standard of efficiency.

(9) Any depreciation of the Service must lead to a falling off in efficiency.

(10) The continuance of proper discipline and subordination, where subordinates are highly trained, necessitates high qualification in Controlling Officers.

(11) The direct and indirect advantages of Forest Conservancy emphatically impose increased, rather than decreased, efficiency of administration.

(12) The social relations, which it is eminently desirable should be maintained, will be injuriously affected if the Service be exceptionally treated.

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(13) The arduous duties and hard life of the Forester dictate for him, pre-eminently over all other Civil Officers, the option and facility of early retirement.

(14) Such retirement is in the interest of the State as well as of the individual.

(15) Inferior prospects of pensions will result in inferior recruits. This state of things would be at variance with the tendency in India to raise the position of Forest Officers, and disastrous to the Service.

(16) The depreciation of the rupee makes an amelioration of the pension prospects a reasonable expectation; but the concession made to other Departments of the same character turns this expectation into a just and equitable claim.

C.—Action taken and proposed.

23 Setting forth the above grounds, and others of individual and general weight, some sixty memorials have been sent in to the Government of India.

Memorials submitted.

Local Governments are known to have supported with more or less strength these representations,

The *President*—concld.

and it is expected that the Government of India will, in transmitting the memorials* to Her Majesty's Secretary of State, be moved to strongly recommend a reconsideration of the orders contained in the Despatch of July 1885.

* They may be expected to reach the India Office in June next.

24. Several members of Parliament take an interest in the case, notably Sir Richard Temple, who recently put a question to the Under-Secretary of State, and received the reply that—

Interest in Parliament.

"It was decided in July 1885 that there were no sufficient reasons for altering the rates of pension, and the Secretary of State sees no reason for reconsidering his decision."

25. It is now proposed to endeavour to have the subject brought before the House next Session in the form of a motion; and with the memorials and a further communication from the Government of India on the subject in hand, it is confidently hoped that Her Majesty's Secretary of State will be pleased to remove the grievance and disadvantage under which the Service labours.

Further proposals.

WITNESS No. XI—*25th April 1887.*

Examination of MIAN MOTI SINGH, Forest Ranger, Punjab.

Mian Moti Singh.

The *President.*

I am a native of the Punjab; my home is near Dalhousie. I am a Rajput. I entered the Department in 1880. Six months after my appointment to the Department, I went to the Forest School at Dehra, where I went through a course, and, having received a certificate, was posted to the Bashahr Division. I had been upwards of two years there when I was transferred to Kulu. I wish to say that Natives are practically excluded from the Department. All the superior posts are occupied by Europeans. There is only one Native in the Department drawing Rs. 200 a month. All the highest posts among the Forest Rangers also are occupied by Europeans. The Forest Rangers are insufficiently paid, considering the arduous nature of their duties. When I joined the Dehra School, I was drawing an allowance of Rs. 20. I paid no fees for my education. I cannot say that I know at present of any Natives fit to be Conservators and Deputy Conservators. Those Europeans I referred to as holding the best Ranger's appointments are domiciled. They were appointed before the Dehra School was established. Natives who wish to enter the Department cannot go to Europe for training on account of their poverty, and those who are wealthy enough to be able to go to Europe prefer other more lucrative and less hard-worked professions. I belong to a younger branch of the Raja of Nurpur's family. I was educated in the Gurdaspur School. I wish to say that the prospects of Natives in this Service are not sufficient to attract good men to the Department. In the first place, the appointments of Assistant and Sub-Assistant Conservators are very few; so also are the appointments of Forest Rangers. Comparing our prospects with those of men in the Executive Department, our position is much inferior. The hardships to which a Native is exposed in this Department are much greater than those to which he would be exposed in the Executive. I have had in the course of my service several narrow escapes from avalanches and landslips. I have also had narrow escapes from falling down precipices while engaged in measuring and marking trees. A Native can live on Rs. 50, but not comfortably. I found it difficult to live on my pay when I was in Bashahr, owing a good deal to the fact that I had to get my provisions from Simla. I am not able to maintain my family on my pay. They are supported by the family zemindari.

The *President*—contd.

WITNESS No. XII—*25th April 1887.*

Examination of A. M. REUTHER, Esq., Deputy Conservator, Punjab.

A. M. Reuther, Esq.

The *President.*

Where were you educated?—Partly in England and partly in Germany. I was appointed in this country. I had commenced my preparatory studies for appointment to the Department by the Secretary of State, but owing to ill-health I was compelled to come to India before I had completed my course. I am by birth a Prussian, but a naturalized British subject. I was born in India, but my father was not domiciled here. I entered the Department in 1877. My appointment was sanctioned by the Government of India, on the recommendation of the Conservator. I was a passed student in the Rurki College. I was selected from there. I have served in several divisions of the Punjab.

The *President*—contd.

What do you think of Natives as Forest Officers?—Those I have had personal experience of were wanting in several points. They were inclined to be very perfunctory in the discharge of their duties.

The *President*—contd.

They were wanting in zeal and energy. I am speaking now of men who had not been trained at the Forest School. I have very little experience of men who have passed through the School. I had domiciled Europeans under me ; one was an entire failure and was dismissed from the Department; another is performing his duties fairly well.

Have you yourself undergone any special training in the Forest School?—I attended courses of lectures at Dehra for one month, and I think I derived benefit from them. They put me in the way of proceeding with my studies independently.

The *President*—concld.

Do you agree with the previous witness as to pensions?—I agree with Mr. Elliott as regards pensions, and I would wish to add that the furlough rules ought to be improved. At present we are only entitled to 2 years during 30 years' service, and no portion of that furlough counts for pension.

WITNESS No. XIII—*25th April 1887.*

Examination of Mian NIZAM-UD-DIN, President of the Zemindars Reforming Society, Lahore.

Mian Nizam-ud-din.

The *President.*

What are the views which you wish to bring before us in connection with Forest administration in the Punjab?—I wish to say that Natives are at present ineligible for the superior appointments in the Department. The present Controlling Staff is almost entirely European.

Do you know any Natives who are fitted by their education for holding these appointments?—Not yet; but if you guaranteed to Natives that they will be appointed when they show themselves qualified, they will make themselves so.

Is there any rule which prohibits the admission of Natives to these appointments if qualified to hold them?—No.

Then what do you complain of?—There is no school in this country capable of giving such an education to Natives as will qualify them for the Controlling Service, and they are not in such a position as to be able to go to England and qualify themselves.

If a school was established at a cost of Rs. 80,000 annually, how many Natives do you think are at present sufficiently acquainted with the rudimentary branches of Science to be able to take advantage of a higher education in Forestry?—There are, I suppose, a good many University Graduates who are.

Is there any Graduate whom you know has a sufficient rudimentary knowledge of Science to be capable of receiving an education in the higher branches of Forestry?—I cannot say.

You say you know many Graduates who would be glad to get employment in the Forest Department?—In the higher branches, I meant.

Are they men who would be prepared to live an out-door life—to live 150 miles from Simla, for instance?—Yes. I have two brothers, men of that kind.

Have they received any training whatever in the Forest Department? Have they been to the Forest School or offered themselves as Forest Rangers?—No, because it is not their object to enter the Service as Forest Rangers; one is 21, the other is 22. They would not accept an appointment as Forest Ranger if it were offered.

Why not?—Because it is impossible to expect men of education to enter the Service as Forest Rangers when they can by competition obtain other posts, such as Tahsildars'.

The *President*—contd.

What difference is there in dignity between a Forest Ranger and Tahsildar?—The appointment of Tahsildar is one of greater responsibility.

What is the extent of a Forest Ranger's charge?—I am not certain ; but I think it is very frequently as large as a tahsil.

A man cannot be a Tahsildar without previous training—can he?—Some people can get a Tahsildarship without previous training ; but ordinarily a man must enter as a Naib Tahsildar.

What is the pay of a Naib Tahsildar?—Rs. 50.

The same pay as a Ranger gets?—Yes.

How much is the pay of a Tahsildar?—Rs. 150 to begin with, rising to Rs. 250.

You think your brothers would prefer a Tahsildarship to a Forest Rangership?—Yes.

Why do they not go to the Dehra School and qualify themselves to be Sub-Assistant Conservators?—Because the education given at the Dehra School would only qualify them to become Sub-Assistant Conservators, and they would not be permitted to rise higher. My complaint is that Natives in the Forest Department of this country have no higher prospect than that of becoming Sub-Assistant Conservators.

Have either of your brothers studied Natural Science?—One of them took up Science for the B. A. I cannot say which branch of Science. The other took up history.

What are they doing now?—One has put down his name as candidate for the post of Extra Assistant Commissioner. The other is thinking of going to England to study for the Bar.

The Hon'ble Mr. *Quinton.*

Do you know anything of the technical qualifications required from officers in the Forest Department?—No ; but as a Zemindar I know something about trees. I have two or three gardens.

Are you aware that a Sub-Assistant Conservator may be promoted to be a Deputy Conservator?—No.

Are you aware that two of the witnesses examined here to-day as Deputy Conservators entered the Department as Sub-Assistants?—No.

[Paragraph 21 of the Departmental Code as to first appointment to the Controlling Staff was read to witness.]

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Section IV.

Major F. Bailey.

Section IV.—Written Evidence.

No. 1—Questions referred to MAJOR F. BAILEY by the Sub-Committee, Public Service Commission.

1.—What was the course of instruction given to candidates for the Indian Forest Department at Nancy?

The regular courses of instruction at the French National Forest School extend over two years, each year's work being arranged as follows, *viz.* :—

	Months.
Winter or theoretical term (15th October to end of April): work in the lecture hall or study, with excursions during the month of April	6½
Summer or practical term (1st May to 15th July): excursions, tours, surveying, and writing up notes in study	2½
Examinations (15th July to 15th August)	1
Vacations	2
Total ...	12

The English students followed the undermentioned courses, *viz.* :—

1. Sylviculture.
2. Working-Plans.
3. Botany.
4. Mineralogy.
5. Rocks and Soils.
6. Geology.
7. Zoology.
8. Political Economy.
9. Forest Statistics.
10. Agricultural (voluntary).
11. Law.
12. Applied Mathematics.

Regarding the nature of the instruction given in each branch of study during the ordinary courses, the preliminary period spent at the school by the English students before entering on those courses, and the extra tours made by them under special sanction, I beg to extract as follows from a report on the training of English Forest students in France submitted by me to the India Office in April 1886 :

Sylviculture (1st year).

Theoretical portion.—This course is divided into the following parts, *viz.* :—

Part I.—On the production of wood—

1. Action of natural phenomena on vegetation (origin of the elementary principles of plants, influence of water, light, heat, &c.).
2. Climate.
3. Soil.
4. Study of a tree; its component parts, its growth and form, its seeding and coppicing.
5. Various kinds of trees; their temperament, their requirements in the way of light, heat, and moisture; their preference for various kinds of soil, their root development, their seeding, and the length of their life.
6. Forest crops; their density and form. High-forest, coppice, pure and mixed forest.

Part II.—The principles of Forest management.

Part III.—The treatment of forests—

1. High-forest; the regular and selection methods.
2. Coppice; simple and with standards.
3. Conversion from one system to another.

Part IV—

1. Method of conducting the felling and export of timber.
2. The protection of forests against animals, insects, fires, &c.
3. Works of improvement.

Part V.—The afforestation of unwooded areas.

Part VI—

1. The qualities and classification of timber.
2. Diseases of trees.
3. The causes of the deterioration of timber and its preservation.
4. The cutting up and measurement of timber.
5. The collection of bark resin.
6. Charcoal burning.

Practical portion.—This portion of the Sylvicultural course consists for each student in six afternoon excursions into the forests near Nancy during the month of April, when the Professor explains what is seen with reference to his previous teaching in the lecture room; and, during the summer months, in six days spent in marking reserved trees in coppice with standards, with an estimate of the yield, in wood of various classes, of the portion of forest in which they are marked. This is followed by a tour of 13 days in the forests near Nancy and in the Vosges, together with, when possible, a visit to some more distant locality, such as the celebrated forest of Villars-Cotterets, near Paris. One afternoon a week during April, and seven days in June, are devoted to writing up notes in connection with these tours and excursions.

Working-Plans (2nd year).

Theoretical portion.—Introduction. Definition and object of working-plans, with an explanation of the technical terms employed, and a *resumé* of the course of Sylviculture.

Part I.—Study of the fundamental principles which regulate the working of forests, with the cultural, economical, and financial results of different systems.

Part II.—Collection of data, and choice of the system to be adopted.

Part III.—Working-plan of a regular high forest.
Working-plan of a simple coppice and of coppice with standards.
Working-plan of a forest under conversion from coppice to high-forest.

Part IV.—Estimates of the volume of timber. Timber sales.

Practical portion.—Two days, during the month of April, are devoted by each student to the marking of reserved trees in coppice with standards, with one afternoon a week for writing up notes. In May, twelve days are spent in making a working-plan for a broad-leaved forest, and in June and July an equal time is occupied in framing a similar plan for a coniferous forest.

Botany (1st year).

Theoretical portion—

The minute structure of plants.

The anatomy of plants—

Organs of nutrition.
Organs of reproduction.

Vegetable Physiology—

Chemical composition of plants.
Nutrition of plants.
The influence of air, light, heat, &c., on vegetation.
Geographical botany.
Study of the principal trees of France.
Classification of plants (principally forest trees and shrubs).

Practical portion.—Each student makes two excursions into the forest during the month of April; and at the end of the Sylvicultural tour in June, three days are similarly occupied. During these excursions plants are collected, and they are afterwards dried.

Mineralogy (2nd year).

Minerals and their principal characteristics.
Their geometrical and physical properties.
Their chemical composition.
Their classification.

Rocks and Soils (2nd year).

Rocks.—The elements composing rocks.
Their texture, age, and origin.
Their classification.

Soils.—The physical and chemical properties of soils.
The different layers of soil.
The formation of soil.

Geology (2nd year).

Theoretical portion—

The earth considered as a heavenly body.
The crust of the earth.
Natural phenomena, external and internal.
Their application to ancient times.
Stratified rocks.
Palæontology, animal and vegetable.
The practical application of Palæontology.
The great groups of rocks.
The Geological regions of France, Corsica, and Algeria.

Practical portion.—Two days are devoted to Geological excursions.

Zoology (2nd year).

Vertebrates.
Articulates (including insects).

Political Economy (1st year).

The production, circulation, distribution, and consumption of wealth. Wood specially considered.

Forest Statistics (1st year).

Europe considered generally.
France.
The other European States, each taken separately.
Other parts of the world.

Agriculture (2nd year).

Vegetable production.
Animal production.

Law (1st and 2nd years).

The organization of public authority.
Property and its guarantees.
Offences against property.
Hunting and shooting.
Real property.
Personal property.
The relations between persons.
The Forest laws.
Various laws.

India.

Forests.

Section IV

Major F. Bailey.

Applied Mathematics (1st and 2nd years).

Theoretical portion—

Surveying.

Roads, buildings, and saw-mills.

Torrents.

Practical portion.—During the first year, each student spends 16 days in surveying and laying out roads, and 11 days in drawing the maps and plans. During April of the second year, each student spends 2 days in topographical surveying, and, during the summer term, 16 days in triangulating, and 7 days in computing and drawing charts.

Preliminary period spent by the English Students at Nancy before entering on the regular School Courses.

The two winter and two summer terms, which form the subject of the preceding paragraphs, constitute the entire course at the School, as it is followed by the French students. But, in order to enable the Englishmen to improve their knowledge of the French language before regularly entering the School, as well as to give them some ideas regarding the nature of a forest, and thus to enable them to follow the lectures more intelligently, it has been the practice to send them to Nancy for a preliminary period of about 4½ months (1st March to 15th July), during the greater part of which time they studied Forestry, Mathematics, Geology, Law, and Natural Philosophy, partly at the Academy of Sciences, and partly under a Forest Officer specially deputed to supervise their studies; and they spent one day a week with this officer in the forest near Nancy. They also, under special sanction obtained each year, made a tour of about 20 days, with Colonel Pearson, to some distant forest region.

Extra tours during the regular Courses.

Under special sanction obtained annually, the English students have, at the time that the Frenchmen were engaged in military exercises, made a tour, lasting about 10 days, to some interesting and instructive Forest District at a distance from Nancy. The ordinary school tours are, as a rule, limited by considerations of expense and by want of time to the broad-leaved forests in the neighbourhood of Nancy, and to the coniferous forests of the Vosges and Jura; but occasionally, as was the case last year, a visit is made to Villars-Cotterets, or some other distant forest. The English students have thus, in the ordinary course of their studies, an opportunity of making themselves acquainted with the two classes of forest which are found in the plains and hills on the north and north-east of France; but there are three regions, not embraced in the school tours, which it is most desirable that they should see. These are, 1st, the hot and dry forests of Province, where the conditions closely resemble those existing in many parts of India, where also an excellent system of fire conservancy is maintained, and where the growth of the cork oak can be studied; 2nd, the sand dunes of the south-west coast, with the extraction of resin from the cluster pine; and, 3rd, the treatment of torrents in the Southern Alps. The students now at the School saw the first of these regions last year, and they will be conducted over the sand dunes and see the extraction of resin this year. It is much to be regretted that they cannot be taken down to the Southern Alps, but time does not now admit of this; and at the end of April, when the tour is usually made, the snow is not sufficiently melted to permit of an inspection of the works. It would doubtless have been most profitable to them if they could have studied the system adopted in the management of the Algerain forests; but this has hitherto been out of the question.

II.—What is the course of instruction given to candidates for the Indian Forest Department at Cooper's Hill?

I have had no opportunity of acquainting myself with the arrangements at Cooper's Hill. I have been there and have seen the buildings in which the instruction is given, as well as some of the excellent diagrams used for the Botanical course. Papers on this subject can doubtless be obtained from the Inspector General of Forests.

III.—What would be the probable cost of expanding the Dehra Dun Forest School, so as to make it capable of affording a similar training in India for the Control appointments of the Forest Department?

The School at Dehra Dun is organized for the training of candidates destined to occupy the position of Ranger or Sub-Assistant Conservator, and I do not think it possible to expand it in such a manner as to combine, in the ordinary sense of the term, the teaching of this class of men with that of those who are to enter the Controlling grades. The courses for candidates for the Controlling Staff are necessarily longer and less elementary than those for men destined for the Subordinate Staff; and, in the case of most of them at any rate, it is impossible to arrange the instruction so that the latter may follow the earlier lectures given to the former, which is what I have heard proposed. The educational acquirements of the two classes of men are different. If the instruction is made suitable for the higher, it will be over the heads of the lower; while, if the converse be attempted, the men of the higher class will waste a good deal of valuable time. I grant that up to a certain point the same subjects are taught to both, but the manner of teaching them is not the same. In the Ranger's class the teaching must be elementary, some branches being dealt with in a more or less summary manner; while, in the case of candidates for the Controlling Staff, the instruction must be much more complete; and their teaching is based on the assumption that they have an amount of previous knowledge not possessed by men of the lower class. Hence I do not think the same lectures can, except in rare cases, be followed by the two classes of men. Each must, as a rule, be taught separately from the other. So far as I am aware, no combination of higher and lower Forest Schools under the same roof has as yet been anywhere attempted, the impossibility of such a scheme proving successful being generally acknowledged.

But there is nothing to prevent the present institution from being utilized to an important extent when establishing a higher Forest School at Dehra Dun. It is true that there is barely sufficient accommodation in the existing building for the present class; and even if the Conservator's and Survey offices were removed from it, I doubt if the needful additional space for the teaching of the higher class could be found, so that it would probably be necessary to provide a separate building, which might, however, be in close proximity to the present one. But if this were done, it might be possible to arrange for some at least of the two courses of lectures being given by the same Professors; and the two schools would have a common museum, library, chemical laboratory, forest garden, and other similar aids to instruction. This would, of course, result in a considerable saving of expenditure. The museum, library, and chemical laboratory would no doubt have to be added to; but this could be effected by degrees, and at a moderate annual cost. The question of the Professors is not such a simple one. The Professorial Staff at the present school is, in my opinion, inadequate for the work it is expected to perform. There are only two officers whose time is entirely available for duties connected with the school; these are the Deputy Director, who undertakes the Forestry course, and the (so-called) Instructor, who teaches Physical Science, Mineralogy, Geology, and Surveying.

The course of Vegetable Physiology and Morphology is at present taken by the Director, who is also a Conservator of Forest, in charge of the School Circle of the North-Western Provinces; and the courses of systematic Botany, Mathematics, Roads and Buildings, Law, and Entomology, are taken by officers who have charge of Forest Divisions. I think it must be admitted that although such an arrangement as this may be economical, it is hardly satisfactory, partly because these officers are so much occupied by other duties that they have not sufficient time to devote to teaching and the study of their subjects, and also because there is no provision for carrying on the courses of lectures, should any of them be compelled, by ill-health or otherwise, to take leave, or be removed in consequence of promotion. The gentlemen now engaged in

teaching at Dehra were carefully selected, in the first instance, on account of the qualities they were supposed to possess; and after several years of self-training they have justified their selection in a remarkable manner. I believe I may say that the teaching at Dehra Dun is now of excellent quality. But even more might have been done, and more rapid progress have been made, had these officers been given sufficient time to devote to their courses, and to the preparation of manuals, which are, I believe, still unfinished; and there have already been several changes among the instructors, affecting fortunately only the minor subjects. Should any of the officers charged with the principal courses be removed, temporarily or permanently, the difficulty of providing successors to them would be great; and, however well chosen the latter might be, the teaching at the School could not but suffer a severe check owing to want of experience by the new Professors.

A Professor is not made in a day: it takes, I consider, 3 or 4 years to make one; and many men would never become Professors, even if they were to be employed in teaching for an unlimited number of years. Teaching is an art, for the exercise of which but few men possess the needful qualifications.

If the training of candidates for the Controlling Staff is to be undertaken at Dehra Dun, it will be absolutely necessary to provide a strong staff of Professors, so that no risk may be run of the collapse of any part of the instruction. Such an event would be disastrous, affecting, as it would do for several years, the professional training of the young officers entering both the Controlling and Executive Staff of the Department.

Should this be decided on, it would, I think, be necessary to provide the following staff of Professors, who ought not, except in the instance mentioned below, to have duties unconnected with the Professorships:

1 Director, who might also be Professor of Vegetable Physiology and Morphology in the Higher School.

1 Assistant Professor of Vegetable Physiology and Morphology, who would take this course in the Lower School, under the guidance of the Director or Professor, and be in training to succeed him in the Professorship. He would undertake a portion of the instruction during the practical part of the course.

1 Deputy Director, who might also be Professor of Forestry, theoretical and practical, in the Higher School.

1 Assistant Professor of Forestry, who would undertake this course in the Lower School, under the guidance of the Professor, and be in training to succeed him in the Professorship.

1 Professor of Physical Science, Mineralogy, Geology, and Forest Meteorology.—He would be fully employed during the theoretical courses, even though some of his lectures might possibly be common to both classes. During the rest of the year, he would add to, and arrange the collections of, specimens, and inspect, control, and report on Forest Meteorological Observatories in various parts of the country, in connection with, and under the general guidance of, the Meteorological Reporter to the Government of India.

1 Professor of Systematic Botany, who would be fully occupied in theoretical and practical teaching, and in the collection and arrangement of herbarium specimens.

1 Professor of Entomology, who would be fully employed in teaching, and in making and arranging collections of insects from various parts of India, as well as in studying the nature and extent of the damage they do, and the best methods of dealing with them.

1 Professor of Mathematics, Roads and Buildings, and Surveying.

1 Professor of Forest Law and the Land Revenue System, who might possibly also teach *Political Economy* and *Forest Statistics.*—(During a part of the year, this officer's services might be made available for other work.)

1 Professor of Chemistry (probably not a Forest Officer), whose time will be completely absorbed in lecturing and in the investigation of practical questions submitted for his opinion.

1 Assistant Professor of Chemistry.—He might be a young Forest Officer, who would aid the Professor in investigation, take his place in case of emergency, and improve himself in a manner that could not fail to be useful to the Department.

I find it impossible to suggest a smaller staff than this. I have not proposed, for the present, to appoint Assistant Professors, except for Vegetable Physiology, Forestry, and Chemistry. Successors could more readily be found to other Professors than to those who teach these subjects.

It is difficult to estimate the additional cost involved in these proposals. But it may perhaps be stated to be somewhat as follows:

Capital outlay.

	Rs.	Rs.
Additional lecture rooms		
Enlargement of museum and library		
Additional rooms for Professors		50,000
Enlargement of Chemical Laboratory		
Furniture and equipment		
Student' quarters		

Annual Charges.

	Rs.	Rs.
Interest at 4 per cent. on capital outlay	2,000	
Rent of an office for the Conservator at Rs. 70	840	
Rent of an office for the Forest Surveys at Rs. 70	840	
Proportion of Director's pay and travelling allowance now charged to the Conservatorship ...	13,200	
Four additional Professors at an average salary of, say, Rs. 700 each	33,600	
Travelling allowance for ditto	4,000	
One additional Professor at the same rate for, say, half of each year	4,200	
Three Assistant Professors at an average salary of, say, Rs. 500 each	18,000	
Travelling allowance for ditto	2,200	
Additional stationery, postage, &c.	500	
Addition to collections	1,000	
Other charges	1,500	
Total ...	81,880	
Deduct honoraria now paid to officers engaged in teaching	3,000	
		78,880
Estimated additional cost		1,28,880

To this sum must be added charges on account of the furlough pay and pensions of the additional officers. I am not at present able to estimate these; neither am I aware whether it would be possible to charge fees to candidates for the Controlling Staff; but I hardly think it would be, at any rate at first, so I make no allowance under this head.

India.

Forests.

Section IV.

Major F. Bailey.

IV.—What is your opinion as to the relative advantages of training in India and in Europe?

In India, where vast areas of forest, often ruined by ill-treatment and burdened with rights of all kinds, have to be taken up; where the necessity for restricting the hitherto almost uncontrolled use of such tracts is not understood by the people, and where there is a very limited amount of recorded local experience to guide their professional operations, the men who are responsible for this work must have received a first-rate general education, without which they would be unable to deal successfully with the many and varied questions involved, or to treat, on any thing like equal terms, with officials and other persons with whom they are brought into contact, and sometimes, I regret to say, into conflict. They must also have received the best possible professional training, and be fully acquainted with the manner in which similar questions have been met and dealt with in other countries, where they have now been settled. It is a very great advantage to them to have a good practical acquaintance with some of the best forests of the older forest countries of Europe, in order that they may realize the measure of perfection it has there been possible to attain, and have before their minds' eye an ideal up to which they can work in the case of forests not overburdened with rights, and not required to be sacrificed for the surrounding population.

If in India we had forests properly managed during a sufficiently long period on a system built up on the experience of years, so that the results of management under various approved methods were apparent, and could be held up to the students as a standard to work up to, then, although a visit to some of the best of the European Forests could not fail to be an advantage, India would doubtless be much the best place to train our students in.

Such is, however, not the case, it being impossible, for example, to adopt the suggestion I have heard made that the entire range of Forest teaching might be illustrated in a single irrigated plantation, in which the first rotation of cuttings is not yet half completed. Under the circumstances, we have hitherto been driven to seek instruction for our Controlling Staff in other countries, where the required conditions exist.

It is sometimes urged that differences of climate, species, and other things render the training in Europe of men destined to work in India useless. This is, in my opinion, by no means the case. The principles of the Forest Science are the same everywhere; vegetable growth goes on under the same natural laws; the effects of light, heat, and moisture are the same; and the objects of Forest management are, generally speaking, identical. Some species in the Himalaya are almost undistinguishable from those found in Europe, while others are very similar in their habits. But, in any case, a man who has been thoroughly grounded in the principles of the Science as taught in one of the best training schools, whether it be in France, Germany, England, or elsewhere, and has seen and appreciated what has been done by scientific Foresters in those countries, will soon adapt his knowledge to the conditions in which he finds himself; and especially in a country like India, where so much has yet to be found out regarding the habits and requirements of even the best known species, including the correct methods of treating them when growing under varied conditions, such a man is, I consider, likely to attain far better results than one who has not had the same advantage. In this respect I do not think that Forestry differs from any other science.

It is sometimes said that young Forest Officers come out from Europe primed with grand ideas and over-anxious to carry them out in spite of the different circumstances which prevail in this country. I admit that this may sometimes be the case, and that young and over-zealous officers may not always possess the tact that is, almost more than any other quality, needed by them. But I cannot think that in any appreciable proportion of cases such men fail, under the guidance of the older officers of the Department and of the Civil Officers under or with whom they work, to realize, within a reasonable time, the changed conditions in which they find themselves; and I find it difficult to believe that instances to the contrary can be so frequent that they can be forcibly urged against the present system. It is difficult to put old heads on young shoulders under any system of training, or in any profession or department; and I should say that, although such instances of prolonged inability on the part of a few young Forest Officers to appreciate their surroundings and accommodate themselves to circumstances are most regrettable, and cause no doubt a serious amount of inconvenience and discontent among the people who are affected by their ill-judged actions, the advantages which the country derives from the main body of its Forest Officers possessing a high standard of professional knowledge very much outweigh any disadvantage that may exist of the nature just alluded to.

The Department must rely principally on its Rangers and Sub-Assistant Conservators, who are of necessity trained in India. They form its "backbone." But the comparatively small number of men of whom the Controlling Staff is composed, and from among whom we are to select our Professors, our Conservators, and Inspectors General, must, if success is to be attained in the very difficult and critical conditions which prevail at the present time throughout the Indian Empire, have the very best professional training that can be given to them. Hitherto there has been no question of training them in India, and I am of opinion, on the grounds I have endeavoured to set forth above, that the present system should be maintained.

But if, under changing circumstances, it is considered necessary to afford facilities to another class of persons to enter the ranks of the Controlling Staff, or if for other reasons it is desired to change the existing arrangement, then, if a thoroughly satisfactory and liberal arrangement can be made at Dehra, so that there is a prospect of the institution there being by degrees raised to the standard of the best schools of the European continent, the experiment of training our Controlling Staff in India might be tried; but there is no doubt that the new system would start at a decided disadvantage from many points of view. Should, however, this course be decided on, I would urge as a *sine qua non* that selected Forest Officers trained at Dehra Dun should after a service of 4 or 5 years be sent to Europe to undergo a second practical training in some of the best European Forests under arrangements made by the India Office. Touring about, even under the most favorable conditions, and with the best intentions on their part, could not have the required result. From among the officers thus further qualified, the Professors and higher officers of the Department would, generally speaking, be selected

What the comparative cost of the present arrangement at Cooper's Hill, and of that which would be necessary at Dehra Dun, might turn out to be, I cannot say. It is unlikely that the results of a comparison would show favorably for Dehra Dun; and this is hardly to be wondered at, if the number of special Professors to be provided in India, with their comparatively high rates of pay, furlough pay, and pension, are considered.

No. II—Note by Sir DIETRICH BRANDIS, K. C. I. E.

Sir D. Brandis.

Note on the the employment of Natives in the higher branches of the Public Service, by Sir Dietrich Brandis, K.C.I.E., late Inspector General of Forests to the Government of India,—dated Bonn, Rhenish Prussia, 9th February 1887.

From the proceedings of the Public Service Commission, as reported by the Indian papers, I conclude that it may not be out of place if I submit my views upon certain matters under consideration by that Commission.

Organization of the Indian Forest Department.

In the first instance I will speak of the Forest Department, with the requirements of which I am naturally best acquainted. When, in 1878, I was permitted to organize the Forest School at Dehra Dun, my idea was that those Native students who had successfully passed through the course, and

had obtained the Forest Ranger's certificate, should on vacancies arising be appointed to the Executive Branch of the Service. The Indian Forest Service has been divided into three branches. The members of the lowest branch, the Forest Guards or Protective Officers, are recruited locally; they are, and must as a rule be, Natives of the district in which the forests are situated. To them is entrusted the protection of the forests, and what is necessary to ensure efficiency on their part are, besides local knowledge, a strong constitution, active habits, honesty, and general intelligence. Eventually they may be called upon to assist in the Executive management, but at present no arrangements are needed in order to give them a special professional training.

It is different with Forest Rangers, who will, when the organization of Forest administration has been completely carried out, have the Executive management of the Government Forest Estates; the areas entrusted to the charge of one Ranger being large where protection is the chief work to be attended to, whereas they will be limited where the work must be extensive, and where their attention must be concentrated upon a smaller area. The average area of these Forest Ranges will be about 20,000 acres, and it is estimated that, when the organization of Forest Ranges throughout the Indian Empire has been completed, there will be more than 1,500 Forest Rangers in all India * For the professional education of these officers, and of officers in similar positions in Native States and in large Forest estates of private proprietors, the Dehra Dun Forest School has been established, and it is very likely that, in course of time, several such institutions in different parts of the country will have to be formed. At Dehra Dun those who aspire to obtain the Forest Ranger's certificate are taught Forestry and those branches of Pure and Applied Mathematics and Natural Sciences upon which the practice of Forestry is based. To enable them to profit by this course of study, it is necessary that they should start with a good standard of general knowledge, and hence it was settled at the outset that no student should, as a rule, be admitted who had not passed the Entrance Examination of one of the Indian Universities on the English side; and in order to ensure the necessary aptitude and moral as well as physical qualifications for a Forester's life, besides a certain amount of practical knowledge of a Forester's work whereupon to graft the more general and theoretical teaching, it was provided that no student should, as a rule, be sent to Dehra Dun who had not served some time, 12 months at least, in the subordinate grades. Forest Rangers, it was arranged, should all be Natives of India, and as a rule Natives of the Province in which they had been and would again be employed.

The highest branch of the Forest Service, which we designate as the Controlling or Administrative Branch, is at present recruited mainly by men appointed in England by Her Majesty's Secretary of State for India. Candidates are selected on the ground of an entrance examination held annually in London by the Civil Service Commissioners, which practically is competitive, and they afterwards undergo a course of professional training of two years in Forestry, Surveying, and selected branches of Applied Mathematics and the Natural Sciences. The entrance is open to all natural-born British subjects: there is nothing to prevent Natives passing the entrance examination and going through the course of professional training in England; and, as a matter of fact, one or two Natives of India have in this manner entered the Controlling Staff. This branch of the Forest Service is not large, and its numbers are intended always to be limited. In the three presidencies the total number of officers of the class at present is reported to be 170.

Organization of the Forest Department in Prussia.

The point to which I here desire to draw special attention is this, that the branches of the Forest Service, which in India we have separated as the Executive and Controlling Branches, constitute one branch only in those countries where Forest administration is most completely organized. In order to make my meaning clear, it will be convenient briefly to describe the organization of the superior Forest Service in Prussia, and the course of preparation gone through by those who desire to enter that Service. Candidates must, at the outset, obtain the certificate of having passed the closing examination (*Abiturienten examen*) at one of the large German public schools (Gymnasium). This examination must be passed by all who desire to enter the higher branches of the State Service in any of the great public departments, and for those who desire to enter the higher State Forest Service a special condition is attached, *viz.*, that they must have passed with credit in Mathematics. The candidate then goes through a practical apprenticeship of one year in one of the State Forest Districts, and after studying two years at a Forest School and one year at a University, passes his first examination, which, like all others for State Service in Prussia and in other German States, is a pass and not a competitive examination. A high standard is fixed, which must be attained. The subjects required are all branches of Forestry, Surveying, Pure Mathematics, Statics and Mechanics, selected branches of Jurisprudence, Botany, Zoology, Mineralogy, Physics, and Chemistry. The next step is to spend two years in practical work in several Forest Districts, after completing which he presents himself for the second examination. The subjects required include all branches of Forestry, but the questions asked have more special reference to the actual requirements of the Service than was the case at the first examination. Special attention is also paid to those branches of Civil and Criminal Law and Procedure with which a Forest Officer must be familiar, as well as to Political Economy.

Those who have successfully passed the second examination receive the designation of Forest Assessor, and are eligible for appointments in the State Forest Service. Government, however, is in no way obliged to find employment for passed candidates. As far as practicable, they are employed temporarily as Assistants in the Working Plans Branch in the Forest Division of Provincial Governments, or otherwise. Those who distinguish themselves by industry, energy, and special aptitude for the work are selected to fill such vacancies as may arise; those who do not find such employment obtain

* The area of the Reserved State Forests on 1st April 1885 is reported to have been 49,214 square miles, or nearly 32 millions of acres, which, assuming 20,000 acres to be the normal area of a Forest Range, would require 1,600 Rangers.

appointments in forests belonging to towns and villages, to public corporations, or to private proprietors. The first appointment in the State Service which a Forest Assessor looks forward to is that of Oberförster or District Forest Officer, which corresponds to that of Forest Ranger in the Indian Forest Service. The average area of a Forest District under an Oberförster in the Prussian State Forests is 9,600 acres, about one-half of what is intended to be the average charge of a Forest Ranger in India. The Prussian State Forests aggregate 6,597,000 acres, and the number of officers of the Oberförster class is 677, while the number of the Controlling and Inspecting Officers, whose duties correspond to those of the Controlling Staff in India (in 1887), is 129. This staff comprises seven chief officers attached to the Ministry of Agriculture, State Domains, and Forests, who have the rank and designation of Oberlandförstmeister, Oberförstmeister, and Förstmeister. These officers do the work which in India, for a much larger area of State Forests, is attempted to be performed by the Inspector General and Assistant Inspector General of Forests. It further comprises the Directors of Forest Schools, and upwards of 120 Inspecting Officers (Oberförstmeister and Förstmeister) who are attached to Provincial Governments, and whose duties correspond to those of Conservators, Deputy and Assistant Conservators in India. Of the officers holding the rank of Oberförster, the most capable and distinguished only are promoted to the class of Inspecting and Controlling Officers. The majority remain in the class of Oberförster to the end of their service.

Applications to the requirements of India.

If in India the *personnel* of the Forest Service were homogeneous—if, for instance, all Executive, Inspecting, and Controlling Officers were Natives of India—the organization of the Service and the method of preparing and selecting candidates might have been framed on the pattern of that system, which in the Prussian Forest administration has stood the test of long experience. The peculiar difficulty in this, as in all other branches of the public service in India, consists in the circumstance that certain classes of the higher and more responsible appointments must necessarily be filled by Englishmen. In the Forests this circumstance has necessitated the division into two of what would otherwise be only one branch of the Service. The Prussian Oberförster is mainly an Executive Officer, but those among them who have charge of Forest Districts, consisting of distinct blocks spread over a large extent of country, perform the duties of Controlling Officers as well, outlying blocks being in charge of local Subordinate Officers, who have the Executive management of these blocks under the Oberförster's control. As the Forest business in India develops further, two measures which I proposed when the organization was made will doubtless be carried out more fully than has hitherto been done. One is that young officers who come out to India for the Controlling Staff as Assistant Conservators should always commence their career in the rank of Executive Officers. After they have acquired the needful familiarity with the language, they should be placed in charge of Forest Ranges, and should not be entrusted with the duties of Controlling Officers until they have proved their fitness to those duties by service as Executive Officers. The other proposal was that Government should reserve the right to promote any Forest Ranger, who is not too far advanced in years, and who has done distinguished service, to the Controlling Staff. By giving Native Forest Rangers the chance of earning their promotion to the Controlling Staff, a high and honourable aim is set before them, and this will have a most powerful and beneficial effect upon their character; it will stimulate them to devote their entire strength and energy to the duties entrusted to them, and it will be the greatest possible inducement to earn the confidence of Government by steady, upright, and honest work. One of the chief points which should be kept in view in further developing the organization of the Indian Forest Service must be so to arrange matters as to hold out the strongest possible inducement for the development of high aspirations and strength of character among the Native members of that Service, and this remark may be held to apply to all other branches of the public service.

In sending out to the Indian Forest Service a limited number of young men carefully selected and well prepared for their work by means of a special professional education, Government endeavours to secure for the general organization and control of the Forest business two important points—first, the superior energy and strength of character which the Englishman possesses; and, second, the fertilizing contact with the progress of Forestry in Europe. But the English Officers can only form a very small proportion of the Superior Staff, and hence Native candidates for the office of Forest Ranger are carefully selected and prepared for their work by means of a special professional education, which, though not yet fully developed, aims at the same objects and comprises the same branches of study as that which has been organized for English candidates. Apart from the general requirements of the Service, another object has to be gained by the professional education of Forest Rangers, which in regard to the Forest business is of special importance. Systematic Forestry is like an exotic plant introduced into India; Forest Rangers must be the mainstay of Forest administration, and it is through these officers, and particularly through those among them who may earn promotion to the Controlling Staff, that Forestry will be naturalized in India.

I have spoken of the fertilizing contact with the progress of Forestry in Europe. Indian Forestry is a new art, and new problems in cultural operations, in regard to natural reproduction, in regard to protection against fire, against insects, and hotter enemies, the elaboration of working-plans, and general Forest administration will present themselves, the solution of which will tax the Forester's skill to the utmost. These problems are analogous to those which present themselves in Europe, and the man who has entered into the spirit of scientific research, and who has become familiar with the results of methodical Forest management in those countries where Forestry is best understood, will have a better chance of arriving at correct conclusions and of devising practically useful methods than the man whose instruction in these matters has been imperfect. All superior Forest Officers, Native as well as English, should be encouraged to make themselves familiar with the

science and practice of Forest management in Europe, and with the experience gained in those countries where it is best understood.

The principles here set forth were my guide in advising the Government of India in the organization of the Forest Service, and the establishment of the Dehra Dun Forest School. I do not know how far these principles have been recognized, and how far they have been carried out; but I am certain that they are the right principles to follow in this business. Their exposition may serve as an introduction to what I have to say regarding the extended employment of Natives in other branches of public administration. On this large subject I must, however, for want of practical experience, limit myself to a few remarks of a general character.

No. III—Note by P. N. Bose, Esq., Deputy Superintendent of the Geological Survey of India.

P. N. Bose, Esq.

An open competition for a certain proportion of the appointments in the Higher Service should be held in India and the selected candidates trained at Dehra Dun, the teaching staff there being strengthened, if necessary. The entrance educational test should be sufficiently high to secure men with some amount of general culture. I do not know if the rule disallowing married people from competition is still in force. If it be, it should be done away with. There is very little risk of the officers or any of their camp being carried away by wild beasts. An officer may leave his wife at head-quarters or elsewhere if he likes when he goes out on tour. The rule appears to me to be senseless.

The technical education required for a Forest Officer of the rank of Assistant Conservator is not of a high order, and can be easily given to Indians of average abilities. They would have the special advantage of not having to be acclimatized and of knowing the vernaculars or learning them with facility. A knowledge of vernaculars and of the manners and customs of the people is useful in preventing friction between villagers residing in proximity to Government Forests and Forest underlings, in protecting the former from extortion, and securing them in the enjoyment of their just rights and in keeping the latter in check.

G. C. Press, Simla.—No. 2 P. S. C.—30-12-87.—535.

PART II.

BOMBAY AND MADRAS.

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BENGAL SECRETARIAT LIBRARY.

PROCEEDINGS

OF

THE SUB-COMMITTEE,

PUBLIC SERVICE COMMISSION.

BOMBAY.
Forests.

Section I.—Note by the Sub-Committee.

The Forest Department in the Presidency of Bombay is charged with the administration of the forests not only in the Presidency proper, but also in the Province of Sind.

The Controlling Staff in the Bombay Presidency (including Sind) consists of a Conservator of the 1st grade, a Conservator of the 2nd grade, a Conservator of the 3rd grade, two Deputy Conservators of the 1st grade, three Deputy Conservators of the 2nd grade, four Deputy Conservators of the 3rd grade, seven Deputy Conservators of the 4th grade, five Assistant Conservators of the 1st grade, and five Assistant Conservators of the 2nd and 3rd grades on R350 and R250 respectively.

With the exception of a Deputy Conservator in the 2nd grade—Mr. Desai, a Parsi, who obtained his appointment by competition and was trained in Europe—all the Conservators and Deputy Conservators are non-domiciled Europeans. Of the Assistant Conservators of the 1st grade, four are non-domiciled Europeans and one is a domiciled European. Of the five appointments in the 2nd and 3rd grades of Assistant Conservator, two were held at the time of the enquiry by non-domiciled Europeans, two by domiciled Europeans, and one was vacant.

In the Executive Staff there are three appointments of Sub-Assistant Conservators of the 1st grade on R100, held by a non-domiciled European, a Eurasian, and a Hindu respectively; four of Sub-Assistant Conservators of the 2nd grade on R175, all of which are held by Hindus; and six of Sub-Assistant Conservators of the 3rd grade on R150, held respectively by a non-domiciled European, a domiciled European, a Eurasian, two Hindus, and a Parsi. There are five appointments of Rangers on R100, of which two are held by non-domiciled Europeans, one by a Hindu, and two by Mahomedans. No other officers in the Department in the Bombay Presidency, whose duties are not clerical, receive salaries amounting to R100.

The salaries of Rangers in the lower grades are R50, 60 and 80; the salaries of Foresters are R20, 30 and 40; the salaries of Forest Guards are R7, 8, 9, 10, 12 and 15.

Appointments to the Controlling Staff are made by the Secretary of State from candidates who have succeeded in the competitive examination and have undergone training in Europe, and when these officers are not available to fill existing vacancies, the appointments are given by His Excellency the Governor, with the sanction of the Secretary of State, to Sub-Assistant Conservators of special merit and of not less than five years' service in that class. When no candidates were available from either of these sources, appointments were made of gentlemen who had received no special training, but it is understood that such appointments have been discontinued.

The following table shows the number of trained and untrained officers now holding posts on the Controlling Staff:—

—	Conservators.	Deputies.	Assistants.	Total.
Appointed by the Secretary of State . . .	1	9	6	16
Appointed by the Local Government . . .	2	6	...	8
Promoted from the Sub-Assistant grade . . .	...	1	4	5
Total .	3	16	10	29

Officers appointed to the Controlling grades are required to pass prescribed examinations in the Vernacular languages, in Land Revenue systems, and in Forest Law. Priority in passing these examinations regulates promotion, temporary and permanent, up to and including the fourth or lowest grade of Deputy Conservator. On entering that grade officers take their

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places according to the date of their original appointment to the class of Assistant Conservator, and thereafter promotion is regulated by practical efficiency. The Departmental Member takes objection to these rules in so far as promotion is regulated by priority in passing the prescribed examinations, as he considers that it gives an undue advantage to officers appointed in this country over officers trained in England.

Vacancies in the class of Sub-Assistant Conservators are filled by His Excellency the Governor in Council—(1) by selection, at the instance of the Conservator, of deserving officers in the Ranger grades, the Protective staff, or the Office establishments; (2) by the appointment of students who have obtained the degree of L.C.E. at the College of Science, Poona, having taken up Botany as one of the special subjects; (3) by the appointment of other persons, the sons of officers, &c., who may be recommended as qualified.

On first appointment to the class of Sub-Assistants, an officer is posted to the lowest grade and is not confirmed in his appointment until he has passed an examination in the vernacular of the district in which he is serving and in Surveying. Promotion to the higher grades of this class is regulated by seniority.

Sub-Assistants frequently hold charge of Forest Divisions for short periods when no officer of the Controlling staff is available.

The Conservators appoint Forest Rangers ordinarily by the promotion of Foresters, seniority and merit being taken into consideration; but in rare and exceptional cases these appointments are conferred on candidates for employment in the Forest Department. Foresters are also appointed by the Conservators either by the promotion of deserving Forest Guards or by selection from students who have attended the Forest Class at the College of Science, Poona, and have obtained certificates. In exceptional cases appointments are also made of outsiders who seek employment in the Department. The appointments and promotions of Forest Guards to the highest grade are made by the Conservator, and below that grade by the Divisional Forest officer. It is stated that, as a rule, Forest Guards appointed to the grade receiving salaries at the rate of ₹10 are able to read and write.

The leave and pension rules for officers of the Forest Department in the Presidency of Bombay are similar to those which apply to officers of the several classes employed in the Department in the territories under the administration of the Government of India. The Departmental Member urges that the furlough and pension rules applicable to the officers recruited by a competitive examination in England should be identical with those prescribed for similarly trained officers in the Public Works and Telegraph Departments, and that the Forest officers recruited in England should be admitted to a provident fund on the same terms as the other officers with whom they have been educated.

The pay of the highest grade of Sub-Assistant Conservators in territories administered by the Government of India is ₹250, and that of the highest grade of Rangers is ₹120; in the Bombay Presidency, Sub-Assistant Conservators in the highest grade receive only ₹200 and Rangers in the highest grade only ₹100. The Departmental Member urges that this inequality should be remedied. He points out that the cost of living in the Bombay Presidency is, if anything, higher, while the importance of attracting efficient men to the Department is not less, than it is elsewhere.

As to the respective qualifications of the several classes who seek employment in the Department, the Departmental Member, speaking from an experience of 21 years in the service, testifies to the efficiency of the officers trained in Germany or France. He deprecates the appointment to the Controlling staff of any officers who have not received such training, and is opposed not only to any direct appointments to that staff being made in India, but to the promotion to it of Sub-Assistant Conservators. While he allows that he sees no reason for debarring Natives of suitable physique and with the requisite qualifications from employment in the highest posts in the Department, he insists that they should enter the Controlling branch, in the same manner as two gentlemen from the Bombay Presidency—Mr. Desai and Mr. Fernandez—have done, by competition followed by special training in Europe.

He attaches much importance to the technical training of the Executive staff. It may be mentioned that in the College of Science at Poona a Forest class was formed in 1879 which provides a special course of instruction extending over two years, and that an officer of the Forest Department is from time to time deputed to deliver a course of lectures to the class. The Departmental Member admits that the College has turned out a few good men, but he considers that the School at Dehra Dun possesses many advantages, inasmuch as it is in the immediate neighbourhood of forests under the management of the Department and the instruction there given is confined to Forestry and cognate subjects, and competent officers are always attached to the School to attend to the instruction of students not only in the class-rooms but also in the forests. He mentions that there are excellent men among the Sub-Assistant Conservators, and that some have given satisfaction when holding divisional charges, but that as a class they are not sufficiently active and are greatly wanting in influence.

He advises that the Executive Staff should be recruited only from Eurasians and Natives, except when it is necessary to secure the services of a Mechanical Engineer.

He inclines to think that some technical training should be insisted on as a qualification

for admission to the Forester class, and he mentions that, owing to the insufficiency of the number of Rangers, four out of five Ranges will be found in charge of Foresters.

In the note forwarded by the Government of Bombay, it is observed that all classes of the community seek employment in the Department, and that, for the discharge of the duties of Sub-Assistant Conservators, the comparative efficiency of each class ranks in the following order—(1) Europeans, (2) Eurasians and Parsis, (3) Mahomedans. It is added that although of the classes who take service in the Department, Hindus are as a rule better educated than Mahomedans, their habits of life, their caste regulations, and their physical powers unfit them to perform as efficiently as Mahomedans the hard work required of an officer on the Executive Staff, and to resist as successfully the malarial attacks to which such an officer is exposed.

It is also stated that the Protective Staff is mainly composed of Hindus and Mahomedans, the salaries of Rangers and Foresters being insufficient to attract Europeans and Parsis; that Mahomedans are somewhat superior to Marathas in intelligence, and that both these classes are more efficient for forest work than Brahmans and Parbhus, as the latter are hampered by their caste regulations, are more habituated to sedentary life, and are wanting in physique; but it is added that there have been Brahmans of active habits on the Protective Staff, and that in in these exceptional cases their better education and superior intelligence make them especially valuable for important executive charges.

The Sub-Committee examined two witnesses at Bombay and five at Poona.—Mr. Hight, Deputy Conservator, stated that he entered the Department in 1872, having gained his appointment at an examination at which about eighty candidates presented themselves to compete for eleven appointments, whereas in 1886 the number of candidates was only double the number of vacancies to be filled. Mr. Hight considered the Service unattractive owing to the low scale of pensions and the paucity of prizes in the superior grades.

Mr. Hight mentioned that he had received his forest training in Hanover and Thuringhiat. He considered that if it is desired that the forests of India should be managed in a manner that is calculated to produce the best financial results, the officers of the Department must receive training. Admitting the excellence of the teaching obtainable at Cooper's Hill, he doubted its sufficiency by reason of the absence of forests in which the principles learned in the study might be at once observed and verified or applied out of doors. He maintained that sowing and planting might be studied advantageously in Scotland, but that Forestry in its largest sense is unknown there; and that although trips to Continental forests may be very interesting, it is open to question whether much solid knowledge could be gained by a hurried visit to them. He recommended that the successful candidates should be sent for training to Germany, because Germans are not only excellent Foresters, but have the gift of teaching in a very high degree; that the candidates should be placed under the charge of an officer who combines an acquaintance with Continental Forestry with long experience in India, and who might point out to them in what respects the system they observed in Germany is suitable to Indian conditions, and in what respects it requires modification, and generally so direct their studies as to secure the best results for service in India. He advised that the candidates should be accredited to some Oberförster, but should provide their own board and lodging, and he recommended that they should secure as their private tutor a German Forester who had recently passed his examinations. Having detailed the subjects of which he regarded the study as essential to the efficiency of a professional Forester, Mr. Hight stated that while acquaintance with the Natural Sciences is desirable for all Forest officers, he would prefer to encourage individuals to make a special study of one or more of them—Botany, Geology, Chemistry, Zoology and Entomology—rather than insist upon all being thoroughly versed in them, and that he would postpone the study of the vernaculars until the officers came to India. He combated the objection that a knowledge of Forestry gained in Europe would be of little value in India, and maintained that the difference of conditions is more imaginary than real, and that many similar problems present themselves to Indian and to German Foresters, having regard to the more advanced state of forest conservancy in Germany.

He expressed himself as decidedly opposed to the employment of Native agency in the Controlling grades. He observed that it is the duty of Government not to find employment for its subjects, but to find the most efficient officers for administering its affairs, and that it should consequently employ both Natives and Europeans in the posts which they are respectively best qualified to fill. He dwelt on the importance of the position of a Forest officer and the influence for good or bad which he is able to exert in a district. He pointed out that each Divisional officer has under him a large number of subordinates scattered over the division, who are brought into close contact with the people and armed with considerable powers, and he appealed to the experience of his brother officers as to the mischief that could be worked by an unscrupulous Forest Guard. To keep these subordinates in control he insisted that firmness, judgment and tact were essential, and that in these qualities Natives are usually deficient. He asserted that Natives are liable to be deceived by their subordinates, are unwilling to act decisively or to undertake responsibility and are unable to maintain discipline, and he stated that in his experience, whenever a Native had held charge of a district, the subordinates had got out of hand with mischievous results. He allowed that his remarks were confined to Natives whom he had met in the Forest Department in the Bombay Presidency, and stated that he did not consider the defects he had mentioned would be overcome by a training in Europe. He admitted that cases of extortion occur with frequency even in divisions supervised by European officers, but he maintained that a European would be better able to check such

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offences than a Native. He deprecated the employment of untrained with trained officers in the higher grades, and gave it as his opinion that efficient training for the higher grades could not be obtained in India, because there are as yet no forests in India to which scientific treatment has been applied to a sufficient extent to afford a school for training, and because of the want of Professors.

In the Subordinate Staff, Mr. Hight contended that honesty and general capacity are almost more necessary than special knowledge. He pointed out that whereas one Range might comprise valuable and extensive forests in which Foresters with a certain amount of knowledge would be required and well worth paying for, in another nothing might be found but scrub jungle in which no operations but those of the simplest kind, such as protection from cattle and a little sowing, would be undertaken for a considerable time, and that charge of the latter might be held by men promoted from Forest Guards; and he insisted that this distinction should be recognized in assigning the different charges to trained and untrained men.

Mr. W. A. Talbot, Deputy Conservator, who obtained his appointment at an examination held in 1873 when twenty-five candidates competed for two vacancies, and had subsequently been trained at Nancy and Kew and who had made Botany his special study, spoke favorably of the Native Foresters who had worked under him. He stated that he had had some men who were excellent Rangers, quite trustworthy and honest, but that they were ignorant of English. He mentioned that one of them was a Mahomedan Inamdar, a Syad. He also stated that a Native Sub-Assistant had done his work very well, and had occasionally held charge of a Division when officers went on leave, but that he is not, in his judgment, a man of sufficient education or position to be put in charge of an important division for any length of time. He gave it as his opinion that a European training is at present absolutely necessary to qualify an officer for the Controlling grade, and that a suitable training cannot be obtained in India.

Mr. Talbot attributed the diminution in the number of English candidates for Forest appointments to the circumstance that it had become known that a number of appointments were given away in India and some of them to men who had failed at the examination in England. In a note prepared by him Mr. Talbot admitted that untrained men had been appointed directly to the Controlling Staff often for the reason that the supply of trained men was not sufficient, and that no appointments of that class had been made for five or six years. But he mentioned that another class of untrained men had been promoted from Sub-Assistant Conservators, and that these men had invariably been Europeans. (He did not mention whether or not they were Statutory Natives.) Mr. Talbot maintained that inasmuch as the forests in the Presidency are exceedingly valuable, only men properly trained should be put in charge of them, and that no person, either European or Native, who had not been trained in Europe, should be appointed to the Controlling Staff. He observed that promotion from the grade of Sub-Assistant Conservator excites considerable discontent, and that it could not be contended that men so promoted have the same technical knowledge as the men trained in Europe. He allowed that Natives appointed to the Ranger class from the School of Science at Poona are ambitious to enter the Superior Staff, but he considered that they were not qualified by education to work satisfactorily a Forest Division. He asserted that the principal obstacle which prevents Natives from proceeding to England for training is the expense; but he argued that the preliminary education in India is much cheaper than in England; and he thought it probable that the scarcity of competitors in 1885, when only twenty appeared for ten vacancies, is to be attributed in some measure to the expense of the training at Cooper's Hill.

He considered that Natives make excellent Rangers and Foresters, and he urged that the men who enter in the grades of Foresters or the lower grades of Rangers should be allowed to expect promotion to the grade of Sub-Assistant Conservator, from which he asserted that they are now practically debarred in that they are superseded by students of the Poona College of Science who are brought in by direct appointment to the higher grade of Ranger and to the grade of Sub-Assistant Conservator. He expressed the opinion that Natives only should be appointed to the Executive Staff with salaries graded from ₹50 to ₹200, and he observed that inasmuch as the efficient working of forests depends directly on Rangers, the claims of this class could not be too seriously considered.

Mr. Lachman Daji Joshi, Sub-Assistant Conservator, 2nd grade, stated that he had been appointed a Sub-Assistant Conservator after thirteen years' service in the Conservator's office, and that he desired to urge the claims of Native Sub-Assistant Conservators to promotion to the grade of Assistant Conservator. He complained that Europeans, after a service of one or two years, had been so promoted in supersession of Natives, of whom one had served in the grade of Sub-Assistant for twenty years, two for nine years, and the fourth for seven or eight years, and of whom one had acted as head of the Forest Department in two Native States, Kolhapur and Baroda. He admitted that this gentleman had reverted to the British service after he had been acquitted of certain charges brought against him in connection with his employment in Baroda. He allowed that a knowledge of English is necessary for an officer placed in charge of a Division, and that he himself had not such knowledge. He also admitted that the Europeans to whom he had referred were acquainted with the vernaculars. He stated that it is well known in the Department that there is a Forest School at Dehra Dun to which Natives may be sent, who would either receive their pay as officers or allowances as probationers, and that he was not aware that any Natives of the Bombay Presidency had applied for admission to that school.

Colonel Peyton, who attended the inquiry as Departmental Member, observed that the necessity for a training in Forestry is becoming more apparent daily, and that the Government would not have appointed any of the Europeans who had been named by the witness, if it had not been that the Department was at the time very short-handed.

Mr. Framji R. Desai, Deputy Conservator of Forests, a Parsi, stated that he had been sent to England at the age of 10 years to be educated for the Civil Service, but that, having noticed the first advertisement issued by the Secretary of State for candidates for the Forest Department, he had presented himself at the competitive examination and obtained an appointment; that after undergoing training at Nancy and Hagenau he had returned to India and been appointed to Sind, in which Province he now held a division of one hundred and twelve square miles in extent. Mr. Desai considered it necessary for the present to continue to educate the Controlling Staff in Europe, because of the absence of forests in which practical training could be imparted, and for the same reason he considered that it would be useless at present to increase the teaching staff of the Dehra Dun school to enable it to prepare officers for the higher grades He attributed so much importance to the effect of a visit to England that he would hold the competitive examination only in that country, even though an Indian candidate might proceed to that country only one month before the examination was held. While he would not insist on making long residence in England compulsory, he was persuaded that training in England is necessary to fit an officer for the Controlling Staff. He mentioned that Mahomedans and Hindu Sindis supply Foresters and Forest Guards; that Sub-Assistant Conservators are mainly recruited from the Sindi Amlah class, and that they do their work very fairly, but are not men of sufficient education to be promoted to the Controlling Staff.

Mr. Mahadev Ballal Nam Joshi, Schoolmaster, Poona, pointed out that the operation of the Resolution of 1879 is to open a door for the appointment of Europeans by allowing their employment when it is deemed necessary. He insisted that Natives have a right to complain that the examinations for the Controlling Staff are held in England. In answer to the objection that facilities for training do not exist in India, he argued that a knowledge of Indian Forestry is only acquired by the English candidates after they arrive in the country, and that, in like manner, Natives could obtain a preliminary knowledge of Forestry in India, and, having passed an examination in this country, might be sent to Germany or France to complete their training. He considered that it is the duty of the Government to establish institutions capable of imparting a theoretical knowledge of the sciences which are applied to Forestry. He admitted that the cost of a special institution might amount to ₹78,000, but he maintained that this expenditure would not only be economical, but profitable; that Natives would be willing to pay for their education, and that, when it was seen that the employment of trained Foresters was remunerative, their services would be sought not only by Government, but by merchants, zemindars, and other large proprietors.

The witness stated that he also wished to complain that no Native had as yet been appointed to the grade of Assistant Conservator, although it had been observed that they had on occasions discharged the duties of those appointments with credit. He mentioned the names of three Native Sub-Assistants who, he asserted, were deserving of promotion for this reason. He further complained that no less than thirteen Europeans had, since the date of the Resolution of 1879, been appointed to the grade of Assistant Conservator. He admitted that six of these appointments were of trained officers, and that he was unable to say whether the other persons appointed were or were not domiciled Europeans or Eurasians. But admitting that if they were Statutory Natives, the rule of 1879 had not been violated by their appointment, he complained that they had superseded Native Sub-Assistants who were equally, if not better, qualified.

Of the three Native gentlemen named by him, one was Mr. Lachman Daji Joshi, the witness who had allowed that he was unacquainted with English; one had been on two occasions deputed to Native States, who had not renewed his engagement; and the third had died.

The witness contended that appointments to the Assistant grade should be made alternately of Europeans trained in England and of Natives trained in the Sub-Assistant grade. He stated that the main objection to the appearance of Natives at a competitive examination in England is the expense entailed in proceeding thither; but he added that in the case of some Natives there is also the caste difficulty, and he insisted that no particular advantage is to be gained by requiring Natives to proceed to England.

Mr. R. C. Wroughton, Deputy Conservator, mentioned that he had obtained his appointment in 1869, when there were about one hundred candidates for eight vacancies, and that he had then been sent to France for training. He stated that he had had Native Sub-Assistants working under him, and that he could not say they did their work satisfactorily; that some had been very inefficient and some moderately good; that the present Sub-Assistant Conservators are almost useless by reason of their want of training; that they render a certain amount of aid in police matters and in maintaining discipline, but give him absolutely no professional assistance. He allowed that one Parsi from the Poona College of Science, who had not been forest-trained, but who was the best Native officer he had met, had rendered valuable assistance to the Divisional officer. He considered that the defect in the existing organization of the Department is that the educational standard is too low having regard to the technical knowledge required. He considered that this is owing to the circumstance that the pay in the lower grades is insufficient to attract men of better education.

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Mr. Wroughton read a note to the Sub-Committee, in which he showed the additions which had been made to the staff of the Northern Circle in the Bombay Presidency, and that with every addition to the staff, although the net revenue had been temporarily affected, it had speedily recovered, and that a considerable profit was the result. He insisted that only men trained in Europe should be admitted to the Controlling Staff; for although he allowed that an Englishman might without a special training administer a division without making very egregious blunders, he denied that he could initiate an improvement until he had obtained an insight into scientific principles by study and experience. In other words, the witness observed that the Government would have to pay for his special education at the expense of the forests in his charge instead of receiving him ready-trained at his own expense. In order to avoid the appointment of untrained men, Mr. Wroughton urged that a sufficient number of trained men should be sent out to take charge of divisions and to officiate in such appointments as well as to provide a reserve of Assistants gaining experience in the peculiar conditions of Forest administration in the Presidency and a knowledge of the vernacular. Mr. Wroughton considered that the competition for the service had fallen off because the education is expensive, while the financial prospects offered are not large and the prizes few; because the Forest officers have been refused the concessions made to Engineer and Telegraph officers trained in England in the matter of pensions; and because the trained officers, on arrival in India, had found promotion blocked by the appointment locally of untrained men while they were undergoing their training. Mr. Wroughton stated that having attended the conference of Forest officers convened at Dehra Dun in 1886 to consider the arrangements of the Forest School there, he had been confirmed in the opinion that a satisfactory training could not be given at that institution for the higher grades. Confessing that he entertained a strong prejudice in favor of the training of Forest officers on the Continent, he expressed himself doubtful as to the result of substituting for that system a training at Cooper's Hill. He admitted that Cooper's Hill furnished what a Continental training did not, namely, a healthy English moral and physical education, which, if Natives offered themselves for the service, would perhaps be more important than the technical training, but he contended that practical instruction in Forestry can only be given efficiently when it is possible for a Professor to illustrate on the spot each detail of a system of culture by examples of its application under varying conditions. While he allowed that he would prefer that Natives should be debarred from the appointments of Divisional officers, he maintained that there should be only one door of admission to the Controlling grade, *i.e.*, by competition in England. At the same time he was of opinion that only exceptional Natives would succeed in the competition, and that few such Natives would attempt to enter the Department if other openings presented themselves, inasmuch as in it hard physical work is unavoidable.

Mr. Wroughton recommended that no man, who had not gone through the course and successfully passed the final examination at Dehra Dun, should be appointed to the Sub-Assistant grade. He admitted that he entertained a strong prejudice in favor of Europeans as Sub-Assistants (possibly because his experience had been limited to untrained men), and he considered the Europeans more active and less afraid of taking responsibility; but he insisted that both classes should be admitted only after going through the prescribed course at Dehra Dun, and, inasmuch as he would debar the Sub-Assistants from promotion to the Assistant grade, he pronounced it necessary that their prospects should be materially improved. He mentioned that at the conference at Dehra Dun it had been unanimously agreed to recommend that the pay of Sub-Assistants should run up to at least ₹400. He asserted that the time has arrived when a larger number of these officers is required and greater ability on their part to render intelligent assistance to the District Forest officer. For the grades of Rangers and Foresters, who, he stated, in his circle are all Natives and mainly Hindus of high caste, he recommended that a training at the Poona College should be insisted on as a qualification for promotion to any grade carrying a salary above ₹40, and that for the Forester grades there should be a qualifying examination following on a special vernacular course of instruction. He described the subordinates in his circle as being, when young, tolerably active and intelligent, but very imperfectly educated, unfitted by their caste rules for forest life, and rapidly succumbing to the hardships which their duties entailed on them. He also complained that they lack the moral influence of a superior education to enforce discipline among their subordinates and to command respect from their equals in other Departments.

Mr. Wroughton also made certain recommendations with regard to the Office and Accounts establishments, which it is unnecessary to notice except in so far as he advocated the complete separation of the Office and Executive establishments. He described the lectures delivered by a Departmental officer at the Poona College of Science as being a mere sketch of the subjects with which the students would have to deal when their practical work commenced. He stated that he had known one man educated at that College who had turned out an efficient Forest officer and done excellent work, but that another officer to whom Mr. Joshi had referred as having been superseded was not an officer whom he would put in charge of a division.

Mr. A. T. Shuttleworth, Conservator of Forests, stated that he had originally been appointed to the Indian Navy, and after that service had been abolished had joined the Forest Department. He expressed his preference for Europeans as Sub-Assistant Conservators because they are more inclined to an out-door life; but he admitted that he had had efficient men, both Natives and Europeans, serving under him, and he specially referred to Mr. Mahajan,

a Brahman, one of the gentlemen named by Mr. Joshi, as having been as good an officer as he could desire to have. He stated that this gentleman, who had recently died, was unacquainted with English, and, though most efficient as a Sub-Assistant, had failed when placed in charge of a division. He attributed his failure to his ignorance of English and to his lack of the necessary moral influence with Revenue officers. He mentioned that he had also had an excellent subordinate in the person of a Mahomedan from Ratnagiri, who had joined the Department on a salary of ₹8 and had risen at the time of his death to a post of ₹150. He added that he was not an educated man and could not have been promoted to the Controlling Staff, and that the two officers he had mentioned were the best who had served under him. He stated that he had received a few applications for employment in the Department from educated Natives—men who had taken the Engineer's degree at the College of Science, Poona—and he instanced a Parsi and a Bengali, whom he described as excellent officers. He mentioned that many Natives had passed through the Forest class into the Ranger grade; but that as the entrance examination was competitive, only Brahmans succeeded and Mahomedans had not a chance; that those who thus entered the Department were as a rule weakly men, and that one or two had died. He admitted that it is to a certain extent a hardship on men in the Ranger grade that outsiders should be appointed directly to the post of Sub-Assistant Conservator; but he asserted that the men appointed directly to the Sub-Assistant grade are better educated than those who had entered the Ranger grade through the Forest School. He maintained that it is necessary to recruit for the Controlling Staff entirely in England, because he did not think it possible that a professional education could be given in India, and that, if an open competition were held in India, the men obtained would be inferior in physique to those recruited in England. He explained that in such a competition he believed that Brahmans only would be successful. He objected to the holding of preliminary examinations in India for a certain number of the appointments, and also to simultaneous examinations in England and in India. He gave as his reason that Forest officers should receive an education at a public school in England, inasmuch as they often have to hold their own against the Collector, Commissioner, and even the Government.

Looking to the advance which Natives had made in physique, he anticipated that the time would come when they would be competent to hold the highest posts in the Department. He mentioned that Natives object to serve in parts of the country at a distance from their homes, and that he had known promotion refused by a Native officer for this reason; and lastly, he stated that no Native officer of special merit had within his experience been superseded.

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Section II.—Letter from the Under Secretary, Bombay Government, Revenue Department, and Note by the Departmental Member.

DEPARTMENTAL REPORTS.

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From J. DEC. ATKINS, Esq., Under Secretary to Government of Bomby, Revenue Department, to the President, Sub-Committee, Public Service Commission, dated Bombay Castle, 16th July 1887, No. 4522:—

In reply to your letter, No. 256-Public, dated 30th March 1887, I am directed to furnish, for the information of the Public Service Sub-Committee, full particulars regarding the Forest Department in this Presidency under each of the heads noted in the letter.

I.—*The present regulations of the Department as to admission to the various grades and ranks of which it is composed, and to promotion therein, or if no such regulations exist, a statement of the principles by which the departmental or other authority invested with the duty is guided in making first appointments to, or promotions in, the Department.*

There are four distinct divisions of the staff of the Forest Department in this Presidency, *viz.*, (1) Conservators, Deputy Conservators and Assistant Conservators, (2) Sub-Assistant Conservators, (3) Rangers, Foresters and Clerks, and (4) Forest Guards and Peons.

2. Officers of the first two classes are Gazetted officers. Appointments to the 1st class are ordinarily given, under covenant with Her Majesty's Secretary of State for India, to candidates who have received a professional training, either under the regulations which may from time to time be laid down by Her Majesty's Secretary of State or in such other manner as may be approved by him. When such candidates are not available to fill existing vacancies, the appointments are given, subject to the approval of Her Majesty's Secretary of State, to Sub-Assistant Conservators of special merit and of not less than five years' service in that class. These appointments are, as a rule, made to the 3rd or last grade of Assistant Conservators.

Promotions, permanent and temporary, up to and including the 4th or last grade of Deputy Conservators, are regulated according to priority in passing the prescribed examinations in the Vernacular languages and in Land Revenue systems and Forest law. When once, however, in that grade, officers are, as a general rule, arranged in the order of their standing in the Service (corresponding to the date of their *Original* appointment to the class of Assistant Conservators), the dates of passing the examinations in question being noted against each officer's name for purposes of reference. Thereafter promotions, both permanent and temporary, are regulated by the practical efficiency that officers have shown in the discharge of their duties.

3. Appointments to the class of Sub-Assistant Conservators are made by His Excellency the Governor in Council, (1) from deserving members of the Subordinate Protective and Office establishments who have been recommended by the Conservators, (2) from students who have passed out of the College of Science, Poona, with the degree of L. C. E. and with Botany as one of their special subjects, on applications made by them, or (3) from other candidates, being the sons of officers, &c., who may be recommended to His Excellency the Governor's patronage. First appointments in this class are made to the 3rd or last grade, and the officers appointed are required to pass an examination in the vernacular of the district in which they are serving and in Surveying, according to a prescribed standard, before they are confirmed in their appointments. Promotions to the 2nd or 1st grades of Sub-Assistant Conservators are regulated according to seniority.

4. The regulations of the Department as to admission and promotions to the classes and grades of the subordinate establishments are—

First—Forest Rangers on salaries of Rs. 50, 60, 80 and 100 are appointed—

(*a*) From the list of Foresters, promotion being given to deserving subordinates in that class, selection being regulated by seniority controlled by merit.

(*b*) In rare and excéptional cases by the Conservator from candidates for employment in the Forest service.

Second—Foresters on salaries of Rs. 20, 30 *and* 40 *are appointed—*

(*a*) From the list of Forest Guards, promotion being given to deserving subordinates in that class.

(*b*) From passed students of the Forest Class of the College of Science, Poona.

(*c*) In rare and exceptional cases by the Conservator from candidates for employment in the Forest Service.

Third—Forest Guards on salaries of Rs. 7, 8, 9, 10, 12 *and* 15—

Appointments and promotion to the 15 rupees grade are made by the Conservator of Forests. But in the lower grade, *i.e.*, Rs. 12 and below, by Divisional Forest Officers. As a rule Forest Guards on Rs. 10 and upwards are men who can read and write.

Fourth—Office Establishment, consists of two branches—

(*a*) Clerks on salaries of Rs. 15, 20, 30, 40, 50, 60, 80 and 100. First appointments are given to qualified candidates who have to join on Rs. 15 and work their way up.

(*b*) Peons on salaries of Rs. 7, 8, 9, 10 who are appointed by the head of each office.

II.—*The conditions of service in the Department in regard to pay, pension and furlough.*

The general rules regarding pay, pension and leave applicable to the body of Government servants in general are also applicable to the officers of the Forest Department except the officers specially trained in Europe under regulations made by the Secretary of State, or those especially admitted to the benefits of the more favorable leave rules by that authority who are entitled to leave under rule 1, section 1 (*m*), chapter I of the Civil Leave Code, and to pension under section 114, schedule B, chapter VII of the Civil Pension Code, 6th edition.

III.—*The technical requirements of the Department and the professional attainments essential for efficient service in its various branches.*

Gentlemen appointed to the Forest service in England have to undergo a professional education at Cooper's Hill College. For efficient service in the Superior grades it is necessary that an officer should be of active habits, a good rider and walker, and fond of a forest life, should have a knowledge of Forestry and its allied sciences, should be acquainted with the habits of trees, be a good man of business, possess a knowledge of Surveying and have received a good education.

2. The main technical requirement for service as Rangers and Foresters is knowledge of Forestry and Surveying. The persons seeking employment in these classes should also be men of fair education with a knowledge of book-keeping, as they have to keep and render accounts. The institution in this Presidency, which supplies the instruction required for this class of officers, is the Forest class in the College of Science at Poona to which are admitted matriculated students selected every year by the Conservators from their respective circles. The students are required to produce a certificate of physical fitness before they are admitted. The course of training through which the students have to pass extends over two years and comprises the following subjects :—

Mensuration, Trigonometry, Physics, Chemistry, Geology, Field-work and Surveying, Botany and Forestry (both theoretical and practical).

3. Candidates for appointments of Clerks on the Office establishment are required to have matriculated or passed the Public Service examination.

IV.—*The classes of the community who seek to be employed in the Department and the comparative capacity of each for rendering efficient service therein.*

It has been stated above that the Controlling staff is mostly recruited from men professionally trained in England. All the professionally-trained officers serving in this Presidency are Europeans with the exception of one who is a Parsi. In the lower grades all classes of the community seek to be employed in the Department, and as far as Sub-Assistant Conservators go, they may be ranked as follows in regard to the comparative capacity of each class for rendering efficient service :—

1. Europeans.	3. Mahomedans.
2. Eurasians and Parsis.	4. Hindus.

Hindus are as a rule better educated and of more acute intelligence than Mahomedans, judging from those who have joined the Forest Service, but their habits of life, their caste regulations and their physical powers do not fit them for performing as efficiently as Mahomedans the active hard work required of, and of resisting successfully the malarial attacks encountered ordinarily by, an Indian Forest Officer in the superior grades in the performance of his duties.

2. As regards the subordinate ranks, Hindus and Mahomedans principally compose the Protective establishment. The rates of salaries given to Rangers and Foresters are not sufficiently high to attract Eurasians and Parsis. Mahomedans as a rule are a little ahead of Marathas in capacity for rendering efficient service in the protective establishments of the Forest Department, as being somewhat more intelligent, and both of these castes taken as separate classes are generally superior to Brahmans and Parbhus for out-door work in forests, as the latter are hampered by their caste regulations and are more given to a sedentary life than one of hardihood and adventure, and are wanting in physique. But there have been a few Brahmans of active habits of life in the Forest Protective service, and where such exceptions occur, their better education and superior intelligence make them especially valuable for important executive charges.

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3. As regards office establishments, Brahmans make by far the best Clerks, for they are very intelligent, their hand-writing is good, they are very quick at figures and are careful and have a retentive memory for standing orders and regulations.

Note by the Departmental Member.

The Department is divided into a Controlling, an Executive, and a Protective staff.

2. The Controlling or Superior officers number twenty-nine, of whom three are Conservators on salaries of from Rs. 1,000 to 1,500 monthly, sixteen are Deputy Conservators on Rs. 550 to 900, and ten are Assistants on from Rs. 250 to 450.

3. Appointments to the Controlling or Superior staff are made—

(*a*) By the Secretary of State for India from duly-approved candidates who have won their nominations at an open competitive examination held in England and subsequently passed successfully through a special course of training at home extending over 2 years and 2 months.

(*b*) By direct appointment, made by Government in this country, of gentlemen of no particular special qualifications.

(*c*) By the promotion of officers from the grades of Sub-Assistant.

4. The following shows the proportion of trained to untrained officers at present serving in the department :—

—	Conservators.	Deputies	Assistants.	Total.
(*a*)	1	9	6	16
(*b*)	2	6	..	8
(*c*)	..	1	4	5
Total ..	3	16	10	29

5. All the present officers of the Controlling or Superior staff are Europeans, except Mr. F. R. Desai who is a Parsi and one of the specially-trained officers appointed by the Secretary of State for India in England.

6. Mr. Desai is now a substantive 2nd-grade Deputy Conservator and Acting 1st.

7. Candidates appointed direct in this country, or by promotion from the Sub-Assistant grades, are not required to qualify after appointment, except by passing a departmental examination in the ordinary rules and orders connected with the Forest Department, an easy Survey examination and an examination in one of the vernaculars of the district in which the officer is employed, according to the higher standard.

8. In the latter they have generally made some progress prior to appointment, and as priority in passing the departmental and vernacular examinations gives priority in promotion, there are several instances where the trained officers of the Department, specially prepared and sent out from home by the Secretary of State for India, have been seriously superseded, thereby causing discontent and making the trained service unpopular.

9. On the other hand, the trained officers appointed from home have first of all to win their nominations at an open competitive examination in England, and afterwards to undergo a special training extending over two years and two months, during which time their proficiency is tested by periodical examinations. They have afterwards, on arrival in this country, to pass the Departmental and vernacular examinations before they can hope for promotion.

10. The limit of age for the home-trained officers at the first examinations, at which nomination is won, is from 17 to 21, and applicants must be natural-born British subjects and unmarried up to arrival in India.

11. The examination is open to Natives of India being British-born subjects.

12. Formerly the officers appointed from home were entirely trained in Germany and France, and of the officers so trained and sent to India, all that I have had the good fortune to be associated with during a long term of Forest service extending over 21 years are men the Department may be well proud of.

13. Under recent arrangements, however, Cooper's Hill College now finds all the instruction required in special subjects, and for the practical part of the course candidates pass the last four months in visiting some of the English and Continental forests where, under suitable supervision, they are able to gain a good insight into the principles of Forestry and the results of correct forest management continued over a long period of years.

14. The annual charge for training at Cooper's Hill College, including the cost of tours and practical instruction, is £180.

15. It will not be disputed, I think, that the present system of appointing untrained men direct in this country, or by promotion from the Sub-Assistant grades to the Controlling or Superior staff, is bad and no longer desirable, inasmuch as it does not give the best men for the money paid, or for the business of the Department either.

16. When Forest conservancy was in its infancy the means justified the ways and there was excuse for these appointments, but they are no longer excusable now that in Cooper's Hill College there is a fertile source from which to draw young men of the required attainments, and therefore present incumbents excepted, the Controlling staff should, in my opinion, be trained and recruited from that institution.

17. Under the present mixed system men are appointed who have no qualifications whatever, and are put over the heads of men who have, and who not unnaturally ask what is the good of being trained at considerable expense to themselves, as well as to Government, if training is not necessary.

18. The system is certainly calculated to discourage men from competing for appointments to the home-course of training and, consequently, to lower the standard of excellence of the controlling staff.

19. Either training is necessary, or it is not necessary. In the former case by admitting untrained men, you give them appointments they are not fully competent to hold; and, in the latter case, by training men, you put them and the Government to a considerable and quite useless expense.

20. Taking it for granted then that the Controlling staff should consist of men of the best professional attainments, I would point to Cooper's Hill College as the only door for admission to the Controling staff of the Indian Forest Service.

21. There should be no direct appointments in this country or by promotion from the Sub-Assistant grades, and Europeans and Natives alike should enter through it.

22. To the appointment of Natives to the highest grade of the Service, I can myself see no objection, so long as they go through the course of training I have mentioned, possess the requisite health and physical fitness, and are of active habits.

23. Natives of India it is true, and of the sedentary classes, Brahmans and Babus in particular, who distance all the other classes of Natives in education, are wanting much in that love of adventure and sport which distinguishes the European and draws him into the depths of the forests; but there are many of them who can walk, ride and shoot well and with spirit, and I would like to see them take advantage of the high limit of age and prepare themselves for the Forest Service, like Mr. Desai in Sind and Mr. Fernandez under the Government of India have done.

24. The age for admission might be extended to 22 years even for the open competitive examination in England, if the Natives of India would thereby have a better chance; but to secure men of good education and professional attainments, there should be no competitive examinations and training in this country for the Controlling staff. If there is, it will most undoubtedly act disasterously on the *personnel* of the Service.

25. Lastly, I would desire to add that the existence of any difference between the pension and furlough rules of the trained Forest-officers and those of the Public Works and Telegraph Departments is keenly felt. There is also felt a desire for the establishment of a Provident Fund, such as is available to the officers of the two departments named. It is scarcely fair to make such distinctions between officers of the same education and high training, and now that all are trained in the same college, it will be only good policy and justice to give the trained Forest Officers full equality in matters of such vital interest. There is no doubt that, in consequence, the competition in England for the Forest appointments has greatly fallen off, and that this necessarily tends to lower the standard of excellence in candidates.

26. The Executive Staff numbers fifty-three: thirteen are Sub-Assistants receiving monthly salaries of from Rs. 150 to 200, and forty are Forest Rangers on from Rs. 50 to 100. Both classes receive lower salaries than the corresponding classes under the Government of India, and unless there is some good reason for it, salaries should in fairness be assimilated as near as possible

27. Living is, if anything, more expensive on the Bombay side of India, and certainly the drudgery of office and the importance of having efficient men in reasonable numbers to second the efforts of the Controlling staff to work the forests is not less here than on the other side of India.

28. For Sub-Assistants, salaries might, I think, rise from Rs. 150 to 250, and for Forest Rangers from Rs 50 to 150. This would only bring them level with the same classes serving under the Government of India and prevent the reproach that greater favor is extended on one side of India than the other.

29. The technical training of the Executive Staff is a very important matter. All candidates for this Staff should no doubt be trained, and the places high and low of the officers on the lists should be regulated by the place taken at the final examination.

30. Dehra Dún has many advantages over the College of Science, Poona, inasmuch as it is surrounded by fine forests, and nothing but Forestry and cognate subjects are taught there.

31. The Poona College of Science has turned out a few good men, and Conservators are permitted to send up a certain number of selected candidates annually to the Forest class formed there since 1879.

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32. The Forest class at Poona extends over two years. The course of instruction pursued at the College is a good one. The weak point of the instruction is the practical part, which is not sufficiently attended to during the vacations and because the divisional officers find no time from their other duties. This is what makes Dehra Dún especially valuable, insomuch as there are competent officers always attached to the College to attend to all parts of the course in and out of doors.

33. In case it is not found possible to provide the practical part of an Executive officer's course, then perhaps it would be best to send all the Bombay candidates to Dehra to be instructed there.

34. Among the present Sub-Assistants there are some excellent and reliable men.

35. They frequently hold charge of divisional offices for short periods when there are no officers of the Controlling staff available.

36. In such capacity some have given satisfaction, but, on the whole, they are not sufficiently active and are greatly wanting in weight or influence. I would not look with favor on Sub-Assistants holding divisional charges for longer periods than can be avoided.

37. Lastly, as regards the Executive Staff, I would desire to say that it should be recruited from pure Natives of India and Eurasians only, except where it is necessary to employ the services of a Mechanical Engineer for steam saw machinery such as there is in Kanara.

38. The pay of the Protective Staff ranges from Rs. 7 to 40. They are all pure Natives of India with a few Eurasians in some of the higher grades of it.

39. The Forester class of this Staff, from Rs. 20 to 40 will be as often, if not oftener, found in charge of a range as the Forest Ranger. It is a question then whether some technical training should not be required of the Forester class. It would cost too much money to have a Forest Ranger for every range. Just now and owing to the small number of the Forest Ranger class sanctioned, from four to five Foresters to one Ranger will be found in charge of ranges.

Existing organisation and constitution of the Bombay Forest Department.

1	2	3	4					
Department.	Total number of gazetted appointments, or of appointments not being purely clerical, of salaries of Rs. 100 and upwards.	Distribution of the gazetted appointments amongst classes and grades, with rate of pay attached to each.	Number of appointments in each class or grade now held by—					
			1 Europeans not domiciled in India.	2 Europeans domiciled in India.	3 Eurasians.	4 Natives of India.		
						(a) Hindus.	(b) Mahomedans.	(c) Others.	(d) Total.
Forest Department.	1	Conservator, 1st grade, on Rs. 1,500.	1	..	..	..	..	..	..
	1	Conservator, 2nd grade, on Rs 1,250.	1	..	..	..	..	..	..
	1	Conservator, 3rd grade, on Rs. 1,000.	1	..	..	..	..	..	..
	2	Deputy Conservators, 1st grade, Rs. 900.	2	..	..	..	..	..	..
	3	Deputy Conservators, 2nd grade, Rs. 800.	2	..	..	..	..	1	1
	4	Deputy Conservators, 3rd grade, Rs. 650.	4	..	..	..	..	..	..
	7	Deputy Conservators, 4th grade, Rs. 550.	7	..	..	..	..	..	..
	5	Assistant Conservators, 1st grade, Rs. 450.	4	1	..	..	..	..	..
	5 *	Assistant Conservators, 2nd and 3rd grades, Rs. 350 and 250, respectively.	2	2	..	..	..	..	..
	3	Sub-Assistant Conservators, 1st grade, Rs. 200.	1	..	1	1	..	..	1
	4	Sub-Assistant Conservators, 2nd grade, Rs. 175.	..	..	..	4	..	..	4
	6	Sub-Assistant Conservators, 3rd grade, Rs. 150.	1	1	1	2	..	1	3
	5	Rangers, 1st grade, Rs. 100.	2	..	..	1	2	..	3
	47	Total ..	28	4	2	8	2	2	12

* One post in this grade is at present vacant.

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Section III.

Sittings at Bombay.

Witness No. I.—20*th July* 1887.

Examination of G. A. HIGHT, Esq., Acting 2nd-grade Deputy Conservator, Bijapur.

The *President*.

When did you enter the Department?—In 1872, after competition. There were eleven appointments then vacant, for which there were seventy-five or eighty competitors.

The competition now is very small?—Yes. I believe there were two competitors for each appointment last year.

What do you consider to be the cause of that?—I think the Department is unpopular for various reasons, but especially in consequence of the low scale of pensions; and I do not think the prizes are sufficiently attractive in the superior grades.

Does not the scheme which has been accepted for the future constitution of the Department contemplate the formation of a very large number of executive and a comparatively small number of controlling posts?—I do not know. I think the pensions are the chief drawback.

Are not the rules regarding pensions the same as when you entered the Department?—Yes, but their sterling value is very different.

Where did you receive your technical education?—In Germany, Hanover and Thuringhia, the Hartz Mountains, for two years and a half. When I first came to India I was six months in the Central Provinces, but the most of my service has been in the Bombay Presidency. When I first joined the Department I had no separate charge, but was put to learn the languages under my Divisional Officer. My first charge was that of Divisional Officer at Hydrabad, Sind.

Is there any rule which requires young men to take charge of a Range when they first join the Department?—I do not know of any, but I think there ought to be such a rule.

Have you worked with trained as well as untrained men in India?—Yes.

Do you consider that a special forest training is necessary?—Decidedly.

Do you think a training in Europe is of any real advantage in practical Forestry?—It is a very decided advantage.

Have you any views to urge in connection with this Department?—The following are my views regarding the constitution of the Forest Department and the training of officers (*reads*):—

If the Indian Government wish their forests to be administered in a scientific way, that is, in a way which will produce the highest rent of the soil, then some sort of training is unquestionably necessary.

With regard to Cooper's Hill: I have heard much about the excellent teaching at Cooper's Hill College. But to my mind, training a Forester at Cooper's Hill is very much like a man learning a foreign language in his own country and from his own countrymen. He may gain a certain acquaintance with its grammar and vocabulary, and commit to memory all the rules of its syntax, but know the language he never will and never does. He must go to the country, mix and converse with those who speak it, if he wishes to learn the language in such a way that may be of practical use to him. In just the same way is it impossible to learn Forestry excepting in the forest, by watching the trees themselves, living amongst them, so that every rule, every principle learned in the study, may be at once observed, applied, and verified out of doors. At Cooper's Hill there is no forest. All they can do is to teach certain rules by rote, and such teaching is in my opinion valueless. There may be forests in Scotland, but there is no Forestry. Sowing and planting could no doubt be studied with benefit in Scotland, but Forestry is unknown.

Nor could this disadvantage be made good by visits to the Continental forests. Such trips are no doubt very interesting, but I do not think that much solid knowledge is ever gained by a flying and hurried visit to any place.

I myself was trained in Germany. The system in those days (1870—1872) had one great drawback, namely, that we were not properly looked after. Still I think we learned something, and if only there had been a competent Englishman to superintend our training, the system would have been as perfect as it could well be. And this is the system which I propose should be adopted for the future training of Forest officers. The Germans are quite the kind of people whom one could expect young Englishmen to get on with. They are splendid Foresters and have the gift of teaching in a very high degree, and moreover the German Foresters can, or could fifteen years ago, very well show most young Englishmen the way to walk and climb mountains Only there should be an English head, resident in Germany, who should be constantly with the young students and have entire charge of their training. This post, which I consider to be one of the highest importance, should only be given to a thoroughly competent person. On him more than on anything else the success of the training would depend. He should be acquainted with Continental Forestry, and should have had long experience in India. A retired Indian Forest Officer in fact, and no other, would do. He would then be able to assist the young students in applying their German Forestry to Indian conditions, in pointing out

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where the German principles hold good in India and where they require modification, and generally directing their studies in such a manner as to render them useful in their Indian profession.

The English students should not live in the family of an Oberförster as we did. They should be accredited to some Oberförster who would give them every help, but for board and lodging they should shift for themselves. And they should keep a "coach," *i.e.*, a young German Forester who has just passed his examinations, and who would be very glad to teach them for very trifling pay. This is the very best kind of forest instruction that can be had in Germany. As the Oberförster's fees would also be small and living very cheap, the expense of the training might be reduced very much below what it was in my time.

I have heard it objected that Continental conditions being so very different from those of India, professional knowledge gained in Europe must be worth very little in India. This is not my opinion. No doubt the conditions are in many respects very different, but they are really much more alike than appears at first sight, and any Indian Forest Officer going to Germany could not fail to notice how very similar are the questions which occupy German Foresters to those with which he has been accustomed to deal,—allowance, of course, being made for the more advanced state of forest conservancy in that country.

Having no practical acquaintance with the French system, I cannot speak with any confidence about it, but from all I have heard, I should think it in some respects inferior to what the German training might become under proper supervision.

To the question, whether an introduction of the Native element into the higher grades of the Service is admissible, I answer most emphatically, no. I conceive that in choosing its servants, Government will always look for those who will perform the duties required of them most efficiently, and that any talk about equality of rights, about Natives enjoying the same privileges as the English and the like, is out of place, and rests upon a misconception of the nature and objects of a public service. It is no part of the duty of Government to provide employment for its subjects, nor are the public services there for that purpose, but solely for carrying on the administration of the affairs of the State. The principle of self-interest will therefore induce Government to employ Natives and Europeans in the posts which they are respectively best fitted to occupy. Whatever may be the case in other services, I am most strongly of opinion that to appoint a Native a Divisional Forest Officer is a very unwise proceeding. I do not even think that a Native of India should be admitted upon equal terms with Englishmen to the examinations, because they are as a class deficient in some of the most important qualities which go to make a good Forest Officer. I may be pardoned for saying that I feel very strongly the importance of the position of a Forest Officer, and the influence, for good or for bad, which he is able to exercise in his district. Each of us has under him a large number of subordinates spread about all over the district in close contact with the ryots, and armed with a very considerable amount of power, and we all know, only too well, the mischief which may be worked by an unscrupulous Guard. To manage them properly and keep them in hand is perhaps the most difficult part of a Forest Officer's work, and, to perform it successfully, firmness, judgment and tact are most essential. These are just the qualities which a Native rarely possesses. Natives are soft and gullible, unwilling to act decisively, or to undertake responsibility, can never maintain discipline, and wherever I have known a district in charge of a Native, there the guards have had it all their own way, often with very disastrous results. The Natives feel it themselves, and far prefer to have a "*sahib*" over them, than to be under their own countrymen. In this respect the Forest Department holds a somewhat similar position to the Police.

One more point I should like to mention. The system of recruiting the Department by training men in Europe, and also appointing men out here to the same posts, is to be deprecated. One or the other system should be adopted and adhered to. It can logically be argued, if untrained men can do the work equally well, then why train any? I will assume it, however, to be admitted that professional training is necessary; that a man who has gained his appointment simply through interest, and possesses no knowledge of his profession, will not on an average make as efficient a Forester as one who has been properly trained to it. If this is true, then it follows that every untrained officer who is appointed tends to lower the efficiency of the Department. Moreover it is unjust to those who have spent some three of the best years of their lives, and have cost their parents a considerable sum of money, in order that they might qualify themselves for their profession, to come to India and find others, who commenced life at the same time or later than they did, become their seniors in the Service, because these did without the professional training which they themselves thought it necessary to undergo.

It remains for me to say in what I think that the professional training of a Forest Officer should consist.

In the first place, of course, he should study the whole science of Forestry, of which the different branches are;—

(1) *Sylviculture*, or the science of the formation and treatment of forests, including sowing and planting.
(2) *Forest Utilization.*
(3) *Forest Organization*, including valuation.
(4) *The Science of Soils* and forest climatology.

The auxiliary sciences in order of their importance are—

(5) *Forest Jurisprudence*, and the theory of Indian land tenure.
(6) The elements of *Political Economy.*
(7) *Land Surveying.*
(8) *Geology.*
(9) *Botany.*
(10) *Chemistry.*
(11) *Zoology, Entomology, &c.*

The first seven of those should be compulsory, Nos. 1—4 being, of course, thoroughly mastered from beginning to end, as constituting more particularly the professional knowledge of a

forest. Of Nos. 5, 6 and 7 a special curriculum should be gone through adapted to the purpose required. The four last are of less importance, and would not generally have much bearing upon the practical work of a Forester. Still it is desirable that all should know first the elements of the natural sciences; but of these, I would rather encourage individuals to make specialities than insist upon all being thoroughly versed in them. Though I have said that they have little practical bearing on a Forester's work, still, I think that a good Geologist or a good Botanist, now and then in the Department, may turn his knowledge to excellent account, and if he has any talent for original research will, in the Indian Forest Department, have a splendid opportunity of distinguishing himself. Therefore I think that the study of the higher branches of these subjects should be reserved to those who display a special aptitude or liking for them.

The Indian languages should be left for the young officers to learn after they have come to India. To learn them at home, even if there were any one competent to teach them, would be waste of time. The languages are soon enough picked up in the country.

Subordinate Staff.

On this subject I speak with much greater diffidence than on that of the Superior staff. It is indeed difficult to answer the question, where good Foresters are to be obtained. Nor have I any acquaintance whatever with the method of training pursued at Dehra Dun, so that I am unable to say whether it would be capable of turning out good subordinates for this Presidency. Amongst this class of servants, it is not knowledge so much that is wanted, as honesty and general capacity, and these I am afraid no system of training is likely to confer.

The charge of a Forester consists of a "Range" generally coincident with a revenue taluka. Some of these talukas contain extensive forests of the most valuable kind, which we are now commencing to organize so that they may be treated scientifically.

In others, again, nothing is to be found but scrub jungle, in which no operations but of the simplest kind—protection from cattle and a little rough sowing perhaps—will be undertaken for a very long time yet. In ranges of the first kind, Foresters with a certain amount of knowledge of their work would be very valuable, and well worth paying for. The other less important charges could be held by men promoted from the rank of guards. A distinction of this kind, I think, ought to be adopted, with trained and untrained men holding different charges, though where the former are to receive their training is a question on which I do not at present feel competent to express an opinion.

I have been very much struck with the great similarity in the character and work of Indian and German forests, especially in small matters of detail, such as the protecting the forests from petty thefts and the preservation of village rights.

The *President.*

Is there any great difference in the Sylviculture?—There is; the Germans are very much more advanced in Sylviculture,

Does not the climate of India cause considerable variations in the habits of trees?—Yes. The most important thing we learned in Germany was forest organization, which is only just being introduced into the Bombay Presidency. In my remarks about Natives, I wish it to be distinctly understood that I refer solely to the Natives I have met as Forest Officers.

Lieut.-Colonel *Peyton.*

You have no objection to the employment of Natives who have gone through a course of Forestry in Europe?—I do not think a course of study at home would make any difference. My objection to Natives, even those who have been trained in Europe, is, that they do not maintain discipline.

The *President.*

Have you had much experience of Natives?—I have on several occasions taken over charge of divisions from Natives.

The instances are very few of Natives in the Forest Department having been educated in Europe?—Yes. My remarks as to the necessity of maintaining discipline are made with reference to our Forest Guards; because I know that directly you relax the reins over them, they commence swindling, cheating and extortion; the poorer classes are entirely in their power, and it is incredible the amount of mischief even one Guard can do, and does do, if he is not kept in hand. Keeping the Forest Guards in order is the most difficult part of our work.

Are you aware that one of the best Superintendents of Police in the Punjab is an Afghan, and that Natives are employed in the Salt Department, where there are very large peon establishments under their control, with great opportunities for extortion?—I do not say there are no exceptions here and there; my remarks are entirely confined to Natives I have met in the Forest Department.

The Hon. Khan Bahadur *Kazi Shahbudin.*

Are these complaints of extortion by Forest Guards, as a rule, well founded?—In some cases, there can be no doubt that they are. We prosecute men ourselves very frequently.

Are there many Native Deputy Conservators?—All the Deputy Conservators except one are Europeans in this Presidency, all the Assistants are Europeans; some Sub-Assistants in charge of divisions have been Natives.

How is it then there is so much extortion, if you say the remedy for it is the appointment of Europeans to the superior appointments?—I do not in the least mean to say that there is no extortion committed under European supervision, but I say that a European is better able to keep down such offences than a Native.

You are speaking from your personal knowledge?—Yes.

The *President.*

You say you have had some Native Sub-Assistant Conservators in divisional charge?—Yes.

How did they do their work?—I knew one man, and I may say I was astonished at the want of discipline all through his district.

The Hon. Khan Bahadur *Kazi Shahbudin.*

He was not a trained man?—No.

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Nor very highly educated?—His education was restricted, no doubt.

Do your remarks apply to Natives who have passed through the competition in England and received a European training?—Yes. I do not see how a European training will give them those particular qualifications of tact, firmness, decision, nor enable them to gain the confidence of their subordinates.

Have you heard of the doings of Native officers in independent charge of outposts in Burma?—Yes, and I am speaking according to my own experience and do not wish you to think I am speaking hastily; because my remarks have been thoroughly considered.

Have you been in other parts of India than Bombay?—Yes, in the Central Provinces six years, and five years in Sind.

Your remarks have reference to Natives of the Bombay Presidency only?—Yes.

Why do not Germans come forward for employment in the Indian Forest Department?—Two or three German gentlemen friends of mine have expressed a wish to enter the Department; but there was always the drawback that they would be obliged to become naturalized British subjects.

If that difficulty were removed, should we, do you think, be able to get thoroughly-trained Forest Officers from Germany?—We should, no doubt, but whether they would be equal to maintaining discipline I cannot say.

Are Germans also deficient in those qualities which are necessary for maintaining discipline?—I feel a doubt in my mind. You see they have not been tried.

Do not those Germans who adopt Forestry as a profession belong to the class of gentlemen?—Certainly. The Forest service in Germany ranks next, in social consideration, to the Army, and the men who join it are, as a rule, cadets of noble families, the *Adel* class

Would it be practicable to have a training institution in India for intending Foresters?—I do not feel quite competent to speak. I have not been to Dehra Dun, nor seen the system pursued in the school there.

Would it be possible to have such an institution in India for the training of the subordinate members of the Forest Service?—Yes.

Are the qualifications you have mentioned necessary for the subordinate, as well as the higher officers of the Service?—They are especially necessary for the holders of the higher divisional charges.

Up to what grade would you train men in India?—Up to the grade of Forest Ranger.

What is the pay of a Ranger?—Rs. 50 to 100.

You do not consider it would be practicable to attempt to train men in India for posts higher than Ranger?—No.

Your reason being that Natives are not fit for controlling posts. Have you any other reason?—In the first place, we should require a properly-managed forest in which to show them Forestry. Forestry is still in its infancy in India, and we have no one who could impart the necessary instruction. We have among us trained practical Foresters, but no Professors.

Mr. *Nulkar.*

Could not Germans be induced by moderate salaries to come out and teach?—No doubt, they would make excellent teachers.

And the objection they have to becoming naturalized need not apply?—No. But in the first place they would have to learn English, and I have never known a German Forester yet who knew a word of English.

You say it is no part of the duty of Government to find employment for its subjects. Do you call Natives of India subjects to distinguish them from Europeans?—I do not.

Do not all civilized Governments at the present day consider it their duty to open institutions for giving instruction to their subjects in all branches of knowledge?—To give facilities for education, certainly.

Is it not the duty of the Indian Government to provide proper schools for teaching Natives of India Forestry?—It is a question of self-interest, not of duty. I think it would be very useful if they taught Forestry in all their schools without reference to employment in the Forest Department.

Are you quite sure that in districts in which almost all the higher appointments are held by Europeans, the Forest Guards are any better as regards morality?—Generally I think they are.

Have you not heard of officers in certain districts being given to wholesale corruption while under the supervision of a European?—I should be sorry to speak for the honesty of my own Guards. I could instance such a case myself, a very bad one, in the Colaba district in 1875.

Witness No. II.—20*th July* 1887.

W. A. Talbot, Esq.

Examination of W. A. TALBOT, Esq., Deputy Conservator, Kanara N. Division.

The *President.*

When did you enter the Department?—I passed for the Department in 1873, and came to India in 1876. I had 25 competitors with me for two vacancies. I received my technical training at Nancy, where I was for two years and nine months. After that I was for some time at Kew, studying Economic Botany, and was then sent to Chatham in connection with timber sorting.

I believe you have connected yourself with the literature of Botany since you came to India?—I have worked at Botany and been in correspondence with Botanists. When I first arrived in India I was posted to Thana and afterwards to

Khandesh, and for nine months I was attached to a Forest Officer, learning the language. I was then given charge of the Kolaba district.

Have you seen much of the working of Native Foresters?—I have had a number of Foresters under me.

And Native Sub-Assistants?—One.

How did they do their work?—Very well.

Do you think they were fit for promotion?—I have only had one Native Sub-Assistant under me. He did his work very well, but I do not think he had sufficient education, or was the class of man whom you could put in charge of an important Division for any length of time. He sometimes took charge of a Division when officers went on leave.

Do you consider a training in Europe necessary for an officer in the Controlling grade?—Absolutely necessary.

Do you think it impossible to obtain such a training in India as would fit a man who has got a taste for Forestry for such posts?—Quite impossible at present.

The Forest Department of this Presidency was first set on foot in 1857?—Yes.

Forest organization is even now very much in its infancy in India?—Yes.

Have we any forests to which we could point as having arrived at the stage which would exhibit all the advantages of a systemised Forestry; for instance, a forest district where you could point to a succession of planted areas?—Foresters do not plant. Planting is not now considered good Forestry. That is the difference between the French and German systems. The Germans cut down large areas and replant; whereas the French only trust to blanks and natural regeneration.

Has any forest in India yet arrived at such a stage that you could exhibit in it the lessons of practical Forestry?—Not in the Bombay Presidency.

You have several Native subordinates and Rangers?—Yes.

Are they good men?—I have some excellent men among them. They are capital men for Rangers' work, quite trustworthy and honest as far as I have found them, but they do not know English. One is a Mussalman Inamdar. He is a high class man—a Syad.

Do you know how it is that the number of competitors at home for appointments in the Department has so much fallen off?—There are several reasons, one being that a great number of the appointments are given away out here—a fact which has come to be known in England. Cases have been known of gentlemen, who had succeeded in the examination at home and gone to study at Nancy, finding, when they came to India, that candidates who had failed in the same examination were holding appointments in the Department.

Have you anything to add?—I have put my views in the form of a note which I will read with your permission (*reads*).

Untrained officers are appointed in this country for no special qualifications, often for the reason that the supply of trained men was not sufficient to fill existing vacancies. No appointments of this class have been made for five or six years.

Another class from which the Superior staff has been recruited consists of deserving Sub-Assistants promoted from that grade to the grade of Assistant Conservator. This class of officers have invariably been Europeans, no Natives having entered into the Controlling staff by this gate.

As the forests in the Bombay Presidency are exceedingly valuable, it stands to reason that only the best men should be entrusted with the working of them, and as trained men, by reason of their training, must be superior to untrained men, their other qualifications being similar, I would propose that only Europeans or Natives trained in Europe, on the Continent, or in England, should be appointed to the Superior staff. Promotion from the grade of Sub-Assistant causes considerable discontent, and it cannot be contended, I think, that Europeans or Natives appointed in this country have the same technical knowledge as passed and trained men from home. Natives appointed to the grade of Ranger from the Poona School of Science have, no doubt, a strong desire to enter the Superior staff after passing through the grades of the Sub-Assistants, but I am of opinion that, putting aside the fact of their being Natives of this country—which, of course, should be no bar to their employment—they are not sufficiently well educated to work satisfactorily the responsible charge of a divisional Forest Officer.

If Natives want to enter the Superior staff, they ought to go home, pass the examination, which is by no means very difficult, and receive the necessary training. The great bar against Natives entering the Service by this gate is, no doubt, the expense of education; the Natives of this country are however more favorably situated in this respect than Europeans, the education received in India being much cheaper than a similar education received in Europe. After passing the examination for the Forest Department, the expense of training at Cooper's Hill is considerable and no doubt deters many young Englishmen from competing, the number of candidates being very limited. The year before last only twenty competitors appeared for ten appointments.

Natives make excellent Rangers and Foresters, and it is only fair, I think, that they should be allowed to look forward to entering the grade of Sub-Assistant, which is now practically closed since the appointment of men from the Poona Science School direct to the higher grades of Rangers, or to be Sub-Assistants. A Ranger who has risen from the lower grades naturally feels slighted on being passed over by a youth directly appointed from Poona. I do not for a moment contend that an untrained Ranger is better than a trained one; I would only wish to point out that hardship to old and proved Rangers does exist by the present system of recruitment.

I am of opinion that only Natives should be appointed to the Executive staff, and that the appointments should be graded from 50 rupees to 200 rupees per month, and be all open equally to the existing Staff and to the future trained Executive staff from whatever college they may come. As a great deal of the working of the forests rest directly on the shoulders of the Rangers, the claims of this class of Native subordinates cannot be too seriously considered.

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Sittings at Poona.

Witness No. III.—26*th July* 1887.

Examination of LACHMAN DAJI JOSHI, 2nd-grade Sub-Assistant Conservator, Satara (examined in Mahratti).

Mr. *Nulkar.*

I became Sheristadar in the Conservator's office in 1865. I served in that office nearly thirteen years and then was promoted to third grade of Sub-Assistants in 1878. I served in that grade five years in the Thana district until I was transferred to Khandesh in 1883 and promoted to the second grade in 1884. I have just been transferred to Satara.

I wish to say that Native Sub-Assistants ought to be eligible for promotion to Assistant Conservatorships. The Forest Code provides that after five years' service Sub-Assistants may be promoted to Assistant Conservatorships without examination. They have to pass departmental examination before they can be promoted higher. I had not to pass an examination when I was first appointed Sub-Assistant. European Sub-Assistants are promoted to Assistantships in a year or two. They have not been trained in England, but are appointed under the same circumstances as we are.

Since my appointment in 1878 to the Sub-Assistant grade, four Europeans have been admitted into the Department and appointed to that grade without examination. They have since all been appointed either permanently or to act in the controlling grade. Mr. Clabby, Mr. R. M. Ryan, and Mr. Hornidge were among them. After their appointment to the Department, they had to pass the Departmental Examination. The subjects of that examination are, the rules of the Forest Department, Land Revenue Code, Surveying, and the Vernacular of the district. I am not aware whether persons appointed to the Assistant grade have to pass in Forestry, but though they may not pass an examination in Forestry, they do not find it difficult to carry on their duties as Foresters.

(Col. Peyton here observed that the necessity of a Forest training was becoming day by day more apparent; that Government would not have appointed any of the gentlemen named by the witness if it had not been that the Department was at the time very shorthanded).

Witness:—The four gentlemen I have named had not previously served as Rangers. I do not know what Mr. Clabby was before he entered the Department. They entered the Forest Department as Sub-Assistants. I am unable to say how long they have served in the Forest Department. They know the vernaculars. Officers in the Controlling staff must know English. Officers in charge of Divisions may have European Sub-Assistants under them. Men recruited for the Department in England are either attached to the office of the Conservator or to an experienced Divisional Officer, who may be an Assistant Conservator, to learn their duties. There are seven Sub-Assistantships in the Northern Division, of which four are held by Natives; one of them has served in that grade twenty years, two for nine years, and the fourth seven or eight years. One of them has served in two Native States—Baroda and Kohlapur—as head of the Forest Department there. I do not know exactly why he reverted to British service. I know he was prosecuted, but the charges were not proved against him.

Mr. *Fernandez.*

An officer in divisional charge must have an acquaintance with English, as he has to keep accounts and carry on correspondence in English. Those Sub-Assistants who are not acquainted with English are not fit for divisional charge. An Assistant Conservator not in charge of a Division, but simply doing forest work, need not know English. There is one European Sub-Assistant at present who is not in divisional charge, but doing forest work simply. I am not acquainted with English myself. I admit that no Sub-Assistant can expect to be promoted to an Assistantship unless he knows English. I am aware there is a Forest School at Dehra Dun to which Natives may be sent. The fact is well known in the Department. I know that officers in the Department or probationers are sent there, and that the pupils who are in service receive their pay and the probationers an allowance. I am not aware that any Native of this Presidency has applied for admission to the School.

Witness No. IV.—26*th July* 1887.

Framji R. Desai, Esq.

Examination of FRAMJI R. DESAI, Esq., Acting Deputy Conservator of Forests, Jerruck, Sind.

The *President.*

I am a Parsi: I was born in India and educated in England. I went to England when I was ten years old. I was studying for the Civil Service when five appointments were advertised by the Secretary of State. That was the first occasion on which appointments in this Department were advertised. I resolved to try for admission to this Department and accordingly presented myself at the preliminary examination, and was the third of four successful candidates. I received most of my forest training at Nancy after having been eight months at Hagenau, in Alsace, learning practical work. I was two years at Nancy. During the winter there, we had our theoretical course, and in the spring our practical course. The practical course involved visiting forests and applying the theoretical knowledge we had gained in the winter. We were required to pass half-yearly examinations similar to those passed by the French officers. On the conclusion of my term of in-

struction at Nancy, I went to England, signed my covenant with the Secretary of State on the 1st October 1869, and was sent out to India and posted to Sind, where I have been ever since, and I am now acting as Deputy Conservator of Forests in charge of a Division.

What is the extent of your Division?—One hundred and twelve square miles.

Is it thickly forested?—It is very fairly under forest. I have a portion of the Hyderabad Collectorate under me, but the rest of my charge is in the Karachi Collectorate.

Is it necessary to continue for the present to recruit the Controlling grades of this Department in England?—Certainly; first of all, because we have not the means of educating men for the Department; we have not the material nor the men to teach them. By material I mean we have not forests; we could not possibly take men intended for the Controlling grades into the forests here, where they could not learn what we learned at Nancy. Nor have we men who have made specialities of the several branches of Forestry. Our officers have charge of such large districts that they have not had leisure to devote themselves to special study in connection with the different branches of Forestry.

Have you had many Natives under you?—Only Mahomedans and Hindu Sindis, and all in the subordinate grades—Foresters, Forest Guards and Rangers; no Sub-Assistants.

The Forest Guards are recruited as a rule from the class which supplies the police of the country?—In Sind we get a better class of Natives as a rule than the police for Forest Guards.

Their duties are simply protective?—Quite.

What class of men do you get as Rangers?—The Sindi Amlah class; we have only had one Mahomedan Ranger.

How do they do their work?—Very fairly for men of their education.

Are they sufficiently good to be promoted to the Executive and Controlling staffs?—Certainly not. Their education is not sufficient.

Have you had any men under you who were trained at the Forest School at Dehra?—No.

Do any men in your division apply to be sent to the School?—No.

Do the Rangers know English?—Not one in my division. In the whole of Sind there may be one who knows it, but he has been a Sheristadar and was transferred to the Department.

You do not consider it practicable at present to educate for the Controlling grades in India?—No. We have no forests or organization.

Then it would be useless to increase teaching staff at the School at Dehra to enable it to prepare officers for the upper grades?—Certainly. I would not send men to Dehra to be trained for the Controlling grades.

Because of the absence of forests?—Yes; forests requisite for training.

How many appointments are made to the Controlling staff every year?—I do not know.

Will you kindly explain to us what are your duties which require a high education in Forestry. What have you to do in your Division?—It is not what I have to do, but what I may be called upon to do. I might be put into a district in which my training would be of no practical use to me. But to give an instance: in Sind one of the duties I have to do is to make a working plan.

What is that?—To describe a working plan in detail would require a whole volume, but I will give you the effect of a working plan. It is to so arrange the operations in each forest as to sustain the yield of the forest without deteriorating the forest; that is to say, to try and get a sustained revenue out of it. This requires a number of calculations on the different classes of trees and soils, to find out whether one block of forests is to be treated in two different ways or under one entire treatment. The object of the working plan is to keep the forests in the best possible condition, and, without destroying its capital, to get a yearly income out of it. An untrained man, if a contractor came to him and said, "I want 12,000 logs," would be tempted to go in for getting a large return, and would not think twice about supplying the timber; and as a rule it is untrained men that have charge of divisions in Sind, so far as my experience goes.

Have you found that untrained men have allowed the forests to go to waste?—I do not say that.

Have you seen instances of what you described?—I have seen a Native of Sind, who was only a Head Clerk, put into a division because there was a paucity of officers. I am now in charge of the same Division.

You think the forest deteriorated when the officer you mention was in charge?—The forest would certainly be in a better condition if he had not been there. There are different branches of Forestry. For instance, I do not think there is a man in India who could teach Entomology, that is, the different kinds of insects which attack different kinds of trees. I know of no one here who has made a special study of it.

Are you acquainted with the present rules of the Department for admission to Cooper's Hill?—No.

I believe that now, instead of educating men for this Department in France and Germany, they are educated at Cooper's Hill?—I have been told that at the end of their theoretical course, they are sent to France and Germany for six months.

Do you think the practical training given now-a-days is so good as it was when men underwent their course of study in French and German schools?—I would have preferred the old system.

Are you aware whether there is now a condition that no man can be a candidate for this Department through Cooper's Hill who is a married man?—I know there is such a rule.

And that candidates are liable to forfeit their appointments if they marry before they come out to India?—Yes.

That is a rule which would debar Native gentlemen from entering the Department at all?—Yes.

Have any Native gentlemen besides you and Mr. Fernandez presented themselves at the competitive examination in England for appointments in this Department?—I do not know any who have done so.

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Do you know whether the members of the Controlling staff are being reduced every year in this Department?—No.

Has the number of the Executive staff been largely increased?—Yes.

Is it proposed still further to increase it?—Yes and it is necessary. I have 112 square miles to look after and only three Rangers.

The Hon. Khan Bahadur *Kazi Shahbudin.*

When you say there are no means of training men for the Department in India, what do you mean?—We want organized forests and regular working plans in which you can give officers instruction. These things do not exist at present; we are only making them.

What do you mean by a working plan; will you kindly explain a little more fully?—To explain a working plan in detail would, as I have said, require a volume; but, endeavouring to be as explicit as I can, I would say that my first duty in making a working plan would be to acquaint myself with the whole forest, and divide my forest into compartments or blocks according to the kind of trees that are growing there. I would then ascertain what was the yearly growth in that particular locality, and ascertain the growth of each species of tree. I am now talking of a normal working plan. It depends on the area I had to work whether I would apply the knowledge I have obtained or work on a different basis altogether. For instance, in Sind I should divide my blocks into compartments of three square miles, because they coppice very well in Sind. By coppicing I mean the regeneration of forests from stumps, and not from seeds. You divide your area so as to get easy observation of the sections, and you make these sections according to the variety of your trees.

You have first to determine with regard to every tree how you can get it to multiply its species?—Yes.

What other branches of Forestry is it impossible to teach in India?—Natural Science applied to Forestry. For instance, the Botany that is taught at Nancy. We are taught all the sciences there, Botany, Geology, Zoology, Mineralogy, and how to apply them to our special work.

Could not that be done in India?—No. There are no masters.

Would the Botany taught in Europe apply to an Indian forest?—No.

Given the lecturers or teachers, there would be no difficulty?—I have told you the one difficulty for India was the want of organized forests and a class of teachers.

Do you know how long this Forest Department has existed in India?—No.

You say married men are not allowed to enter the Department?—The reason, I believe, is that the authorities in France and Germany only make arrangements for single men. They might marry, I believe, after they come out to India, and no objection would be taken.

Is there any reason for this restriction?—I cannot say, not knowing exactly the object for which it was made. I think if a man told the Secretary of State he was a grass-widower, he would be allowed to enter.

To all intents and purposes, Natives are debarred by this prohibition from entering the Department?—I think if it were brought to the notice of the Secretary of State, he might abolish the rule in favor of Natives.

Mr. *Nulkar.*

Are you aware that in January last notice was given that an examination for ten vacancies in the Department would be held?—No.

That examination was held in London?—Yes.

What is the object of holding it in London? Is there any objection to holding a simultaneous examination for these appointments here, if the candidates, after passing, went to England or to Nancy for training?—I think a Native of India who desires to enter the Controlling staff of any department should have at least a couple or three years' training in England.

In your opinion, this entrance examination should be held in England?—Yes.

You belong to the Bombay circle and expect promotion in the general list?—Yes.

You have been in the Service for the last eighteen years, and have always obtained promotion according to seniority?—I have never been passed over except once, when Europeans were equally passed over.

The Hon. Khan Bahadur *Kazi Shahbudin.*

How would the advantage of an English training be secured by a Native who, having prepared in India, went to England just in time to pass the examination? Yet he might do that and enter the Department. Then how is it necessary to put him to the expense of going to England on the chance of getting in, and at the risk of being disappointed?—I think even a month in England would improve him; he has seen the world.

You yourself who have lived in England sometime, or anybody else who has been to England, ought to know the advantages you derived from it.

Yet in the other case he goes to England after he is successful?—Yes; but with social habits so matured that he could not be expected to change them. Moreover in France the *esprit de corps* which is so desirable in students for this Department, would be lost by the entrance among them of men who had never been to England except for a month or so.

Then your opinion amounts to this, that he must have lived in England for two or three years even for the purposes of his entrance examination?—Exactly, if he wants to get into the Forest Service. You cannot acquire the active habits in India which are necessary for service. Your powers of observation cannot be developed unless you are in the habit of associating with people with whom those powers are developed as they are in Europeans. I do not mean that the candidate should necessarily go to England, but he should go to Europe. I am the only Native officer in the Service who has been brought up in England, but I think that an officer brought up in England will do better work in the Department than one who has only gone there for the purpose of passing the examination.

You say this with a knowledge of the immense disadvantage which your system would subject Natives to?—I do not propose that a rule should be laid down making long residence in England compulsory. I only give it as my private opinion that that training in England is necessary for an officer if he is to enter the controlling staff.

The *President.*

To what do you attribute the fact that at present there is so little competition for these appointments?—To the pension rules. Officers in this Department do not receive the same advantages in regard to pension that officers in the Public Works and Telegraph Departments do. Up till recently, we were on the same footing.

And you consider that a disadvantage?—Certainly; for Englishmen it would be a great disadvantage.

Are you able to tell us the economic results of forest working in this Presidency?—We have made considerable revenue year after year, and last year's was the highest revenue on record. I do not know of any circle that does not pay.

Is there anything else you wish to say?—No.

Witness No. V.—26*th July* 1887.

Examination of Mahadeo Ballal Nam Joshi, Schoolmaster, New English School.

The *President.*

On what points do you wish to be examined?—On four points—(1) The operation of the Government Resolution; (2) The recruitment of the Controlling staff in England; (3) The extent to which patronage obtains in this Department; (4) That Natives have proved their capacity for higher appointments in the Department.

What is the Resolution to which you refer?—The one restricting the employment of Europeans in certain departments, the Forest Department being one of them; but which leaves a way open for the employment of Europeans, viz., if they are found necessary to the Department. The recruitment has been by two ways: some appointments have been filled here with or without examination, and some by the Secretary of State of persons trained in England. Natives complain that they have a grievance in the examination being held in England.

The Hon. Khan Bahadur *Kazi Shahbudin.*

Which examination?—The examination for appointments in the Controlling grade.

The *President.*

Have you any means for obtaining the necessary training in this country?—If we have not, Government can make them.

How do you answer the objection that there are no forests in which this education can be imparted?—There are forests in which the candidates could receive a preliminary training, and, having passed the examination, they might then be sent to France and Germany. At present candidates learn all their Indian Forestry after they join the Department, which shows that they can be taught sufficient preliminary knowledge here.

Do you know the expression that the eye sees only what it is educated to see?—Yes.

Do you understand the force of that expression?—I believe I do.

Is it not that men who have received a thorough grounding in scientific knowledge can apply that knowledge to facts which may come under their observation, and thereby gain more information than those who have not acquired such knowledge?—I perfectly agree with you.

The system you propose would not be so advantageous as a system by which men first acquired a knowledge of theoretical and practical Forestry in Europe and then came out to Indian Forests?—The theoretical portion can be separated from the practical. The theoretical portion may be given first of all by lectures in Indian Colleges and Forests.

Have you considered what would be the cost of establishing a college capable of imparting a theoretical knowledge of the sciences which are applied to Forestry?—The estimate which has been put forth in the papers, Rs. 75,000 to 78,000, is not extravagant.

Would it be acting economically to spend Rs. 78,000 for the purpose of educating ten officers a year?—Not only economically but profitably.

Would it not be cheaper to send them to Europe and educate them there?—No.

Are you aware that at the present moment men, who enter the Department from England, pay for their own education?—Yes. The same would be the case here.

You say Rs. 78,000 would be required?—Yes, but the ultimate benefit to the Department would more than compensate you. It has been so with the Engineering and Medical Departments.

Do not those Departments require a very much larger recruitment than the Forest Department? So far as Government service is concerned it is probably not much larger.

Can you name any Indian landed proprietors who would employ Forest officers?—The large Bengal zemindars would certainly do so. When we have men before our eyes, who we see do profit us, the merchants, zemindars, and large proprietors of land will very willingly employ them. At present the Forest Department is not a success.

Have you considered the returns which have been furnished by the Department?—I believe the Forest Department spends as much as it receives.

The Hon. Khan Bahadur *Kazi Shahbudin.*

In what institution are Forest Officers trained in England?—At Cooper's Hill.

Do you know the annual cost of this department of the College?—No.

The *President.*

I wish also to complain that no Native has as yet been appointed to the grade of Assistant Conservator, although it has been shown that Natives have on occasions filled those appointments with credit. I may mention Mr. Váman Ramchandra Goundi, who acted for Mr. Wroughton for more than six months; and instances could be cited of Natives who have performed

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the duties of Assistant Conservators for longer periods, and who, in almost all cases, have been declared to have done their work very efficiently. Let me instance the names of Govind Rámchandra Mahájan and Náráyan Ballal Oke who acted for several Assistants and was for some time serving the Baroda and Kolhapur States.

Is that the gentleman who was not re-engaged by the Baroda State?—I do not know.

How is it that his connection with these Native States ceased to exist; did he leave voluntarily?—I believe so.

Do you know what happened?—Yes.

And you say he left voluntarily?—He is still in the Department. There are two other persons whose services Colonel Peyton has brought to the notice of Government. Whenever a temporary vacancy occurs these Sub-Assistants are placed in charge of Divisions, and it is only from the special reports we can learn whether they have worked satisfactorily or not. R. H. Mádán is another of these; he is an L.C.E. My next point concerns persons who have been appointed to the Department since this resolution of 1879. From the Civil List I find that above thirteen persons, all of them Europeans, were appointed to the grade of Assistant Conservator.

Were they domiciled or non-domiciled Europeans?—I cannot say. Six of them were trained; seven were not, viz., Messrs. Hornidge, R.P. Ryan, Clabby, G. M. Ryan, J. M. Fernandez, Blackwell and another.

How many of these are not domiciled?—I do not know, but if they are domiciled or Eurasians I admit the rule has not been violated. My main point is that Native Sub-Assistant Conservators have not had a chance of promotion. The rule is that Sub-Assistant Conservators, who have been in the service five years and done approved service, shall be eligible for promotion.

The rule does not say approved service, but special merit?—That may be; but the object of the rule is, that if the necessary trained men cannot be got from England, Sub-Assistant Conservators, who have practical experience in the Department, shall be promoted. I find no instance of a Native having been appointed an Assistant Conservator permanently; and Natives being superseded and the prizes of the service withdrawn from them, educated men hold aloof from the Service.

Can you tell us the name of any Native Sub-Assistant of special merit, who has been passed over?—There is Mr. Joshi.

Mr. Joshi does not know English?—Knowledge of English is not necessary. Were the gentlemen who superseded him better qualified: did they know Marathi.

Mr. Joshi told us they did?—The question is whether they did when they superseded him. So far as I know, and I have inquired to the best of my ability, those gentlemen did not pass any examination.

Mr. Hornidge is a member of the Institute of Civil Engineers; do you say he has not passed any examination?—No.

Do you say that none of these gentlemen have passed the examination required by the rules?—Some have, others have not.

Which of these have not?—Mr. Ryan has passed in Guzerati and Marahti, but has passed no examination similar to the B. A. of any Indian University.

Lieutenant-Colonel *Peyton*.

This rule does not apply to the Bombay Presidency?—No. It is not the violation of this rule which I press upon your notice, but the violation of the rule of 1879. I say that in appointing these men the claims of Natives have been set aside.

The *President*.

Can you give us any instance of a Native of special merit who has been superseded?—By special merit I meant that these persons had been officially reported as having served very efficiently. If that is not special merit, of course I am wrong. The Conservator may have had good reasons for appointing these gentlemen. I only represent the view which the outside public take of these appointments, namely, that Natives have been superseded.

Can you tell us of your own knowledge of any gentlemen, other than those to whom you have referred, who have been superseded?—I can mention the names of Narayan Ballal Oke, Govind Ramchand Mahajan and Lachman Daji Jóshi.

The last mentioned does not know English?—No, but that is not a disqualification. A knowledge of English is only necessary for the charge of a Division.

The first officer you mention is one whose services have been twice lent to Native States. Is it not very unwise to bring that gentleman's name too prominently before the Committee. You know the circumstances connected with his case?—Yes; but he is still in the Service.

He was invited to give evidence and declined to come?—My next point is that the Sub-Assistant's grade should be recognized as the only field for the recruitment of the Assistant's grade, and that appointments to the higher grades should be made alternately from Europeans trained in England, and trained Natives in the Sub-Assistants' grades.

Why should there be any objection to a Native going to England and passing through Cooper's Hill?—There is first the expense, and, secondly, there is no particular advantage to be gained by sending him to England; and in the case of some there is the caste difficulty; but the expense is the principal drawback.

Are there not a great many people in the world who are unable to follow the professions they think most lucrative because they cannot afford the requisite education?—There are, but there are certain persons who are poor and do.

Supposing Government did establish schools and institutions in this province, there would still be persons who could not take advantage of it unless the education were absolutely gratuitous. If Government did all you desire it to do to facilitate the entrance of the more wealthy, it would have to do a great deal more to open the professions and the Government departments to every one?—You would find the poor would get in.

Is there anything else you have to say?—No.

Witness No. VI.— *26th July* 1887.

Examination of R. C. WROUGHTON, Esq., Deputy Conservator of Forests.

The *President.*

How long have you served in the Department?—I passed my entrance examination early in 1869. There were about one hundred candidates for eight vacancies. I think I was sixth in the competition. I was then sent to France, and was eight months at Hagenau and two years at Nancy. When I came to India I was posted to Nàsik. I have not been out of the Bombay Presidency.

What large forests have you had charge of? I have had charge of the Nasik Division twelve years, and have also had charge of Poona and Thana Divisions.

Have you had Native Sub-Assistant Conservators working under you?—Yes.

How did they do their work?—I cannot say they did it satisfactorily. I have had very bad ones and moderately good ones; but I think the Sub-Assistants we have now are almost useless for their work; they are perfectly untrained men and have had no special training whatever. They give a certain amount of assistance in police and in maintaining discipline and that sort of thing, but absolutely no professional assistance.

Have you also had European and Eurasian Sub-Assistants?—I have never had either Europeans or Eurasians under me. I have had a Parsi from the Poona Engineering College, but not forest-trained; he was far and away the best Native officer and rendered valuable assistance to the divisional officer. The great point to be urged against the present organization of the Department is that, for such a technical department, the educational standard is too low. From the very beginning we have been—owing, no doubt, to financial exigencies—systematically underpaid and undermanned, and the consequence is that we cannot get men with the necessary education—a fact which has told on the character of the Service almost from the top down to the bottom. Men of better education will not join at the bottom because the pay is not sufficiently attractive, and, naturally, if you get a low standard at the bottom, you get a low standard almost all the way up.

Might not men be appointed directly to the Sub-Assistant grades and subsequently promoted to the Assistant grade?—No doubt; but you will not get men to undergo a long course of training if they are liable to be superseded by men appointed direct.

Have you written any note setting forth your views on the subject of this inquiry?—Yes.

(*Reads*)—I wish, before commencing the remarks I have to lay before the Commission, to state emphatically that I have no intention of depreciating the work done by the Forest Department in the last twenty years. On the contrary, as a member of the Department, I am proud of the services rendered by it to Government and the people in this Northern Circle, and I have no doubt elsewhere. Handsome testimony was borne to this fact by Dr. D. Brandis, C.S.I., late Inspector-General of Forests to the Government of India, in his evidence before the Royal Commission on Forests, and many high officers of Government, both civil and military, have at various times congratulated me on the success achieved by the Department in re-clothing hills, formerly bare, with vegetation. What has been done, however, has been done in the face of great difficulties, financial exigencies having kept us chronically undermanned and our establishments underpaid. The Department at its commencement, about 1840, was almost completely of the nature of a Government timber agency, and very little advance was made until after an inspection of the forests of the Presidency by the Inspector-General of Forests. This inspection was followed shortly afterwards by a reorganization of the establishment, the result of which was to raise that establishment to a strength somewhat as follows:—

2 Conservators,
3 Deputy Conservators,
8 Assistant Conservators,
3 Sub-Assistant Conservators,

and a Subordinate Executive Establishment with pay aggregating Rs. 11,168 per annum.

In submitting these proposals to the Government of India, the local Government stated:—"that additional outlay will prove most remunerative. In this belief the Right Honorable the Governor in Council confidently recommends these proposals to the favorable consideration of the Government of India."

Since then, from time to time, increases of establishment have been sanctioned, notably in G.Rs., Nos. 4023, dated 9th August 1878, and 2586, dated 10th September 1885, and of the Gazetted staff by the Secretary of State in 1883, until in 1885-86 the establishment of the Northern Circle alone stood as follows:—

1 Conservator,
9 Deputy Conservators,
5 Assistant Conservators,
7 Sub-Assistant Conservators,

with a Subordinate staff costing annually Rs. 2,57,916.

I give the annual net revenue of the Northern Circle since 1869-70. The Commission can themselves judge from it the financial influence of these several reorganizations:—

	Rs.		Rs.
1869-70 ..	1,89,196	1878-79 ..	47,860
1870-71 ..	2,28,231	1879-80 ..	1,19,758
1871-72 ..	1,48,637	1880-81 ..	1,09,406
1872-73 ..	83,433	1881-82 ..	2,91,896
1873-74 ..	98,748	1882-83 ..	3,76,407
1874-75 ..	1,34,373	1883-84 ..	4,46,912
1875-76 ..	1,46,636	1884-85 ..	3,18,637
1876-77 ..	1,13,854	1885-86 ..	3,72,656
1877-78 ..	2,35,693		

The Gazetted Officers of the Department comprise—

(1) Assistant Conservators and upwards, who are usually in charge of Divisions or Circles.
(2) Sub-Assistant Conservators, who are usually Assistants to Divisional Forest Officers.

Assistant Conservators, &c.—In my opinion the former should be without exception trained men

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from Europe. The Forest Department is essentially a scientific one. A properly-educated Englishman could, no doubt, without a special training, administer a Division without making any egregious blunder; but until by study and experience he had obtained an insight into scientific principles, he could initiate no advance or improvement. In other words, Government would have to pay for his special education at the expense of the forests in his charge, instead of receiving him ready trained at his own expense.

If any exception is made, and men are appointed in this country, the supply from home must fall off and deteriorate On the other hand, however, sufficient men must be trained and sent out, or vacancies will necessarily be filled by local untrained candidates, as in time past. I would point out that there are even now not enough superior Gazetted Officers to hold charge of divisions in this Presidency, which are accordingly placed in charge of Sub-Assistants—a thing which should never occur. In my opinion there should be a Deputy Conservator to every division, with enough Assistants to officiate for any Deputies absent on leave, &c.; and, moreover, a reserve of four or five Assistants who, while doing the work of Sub-Assistants, shall be gaining experience of the peculiar conditions of forest administration in this Presidency and a knowledge of the vernacular.

I am informed that the competition for the Forest Service is falling off, and that now at most four or five candidates appear for each appointment offered; in the earlier days, the proportion was twelve and more candidates for each appointment. The reason is not far to seek. The education is an expensive one, while the financial prospects offered are by no means out of the way, and the prizes are practically *nil*. Again, the concessions made to Engineer and Telegraph Officers trained at home and sent out by the Secretary of State in the matter of pensions, have been refused to similarly-appointed Forest Officers. Finally, there is scarcely a trained officer who has not a grievance that he has, on landing, found promotion blocked above him by the appointment of local untrained men to the Department while he was undergoing his training. In the face of drawbacks like these, even the nature of a Forest Officer's life and work, so attractive to young Englishmen, can have no temptation.

I understand that the Commission are interested in the question of what is the best training for Forest Officers. I have already said that for the superior grades it should be a European one. I attended the conference of Forest Officers convened at Dehra Dun last year, to consider the arrangements of the Forest School there. I was then confirmed in my opinion that a satisfactory training cannot be given there for the higher grades.

I am a Nancy-trained man myself, and confess to a strong prejudice in favor of Continental training. We have as yet no experience of the system of recruitment through Cooper's Hill. Theoretically, however, it seems to me there is much to be said on both sides. The Continental training alone can be a thorough professional training, the means for it at Cooper's Hill being completely wanting. Dry theory can, no doubt, be expounded there by any one who has received a Continental training himself, but the satisfactory illustration of each detail of a system of culture, by examples of its application under varying conditions, is only possible on the spot. At the same time, an approximation might be obtained by the Professor of Forestry at Cooper's Hill, being himself a trained man, keeping himself constantly in touch with Continental Forest services. Cooper's Hill, on the other hand, furnishes what a Continental training did not, viz., a healthy English moral and physical education, which, if Natives come forward for service, will, perhaps, be more important than the other. Personally, I would prefer not to see Natives as Divisional Officers, but there should be one rule for all, *i.e.*, entry, through the regular channel, in England. If a Native enters in this way, it is that there is something exceptional in his case. I do not think, however, many will attempt it, for the Forest Department is not, other things being equal, a favorite with Natives, for it is one in which hard physical work is unavoidable.

Sub-Assistant Conservators.—The stage of working plans has been reached, in their simplest form no doubt, at present, but, a steady advance towards the theoretical, ideal, system of working must be expected and provided for. Consequently the Sub-Assistant Conservator must be sufficiently trained to render intelligent assistance to the District Forest Officer, who necessarily cannot be everywhere at once. To demand a European training for Sub-Assistants is, evidently, out of the question; but we have in Dehra Dun Forest School an excellent means of training this class of officers. I would restrict, absolutely, all appointments to the Sub-Assistant grade to men who have gone through the course and successfully passed the final examination at Dehra Dun. The candidates might be, as at present, either (1) nominees of the Local Government, studying at their own expense, on the understanding that they will have a claim to be provided with an appointment as soon as possible after passing out successfully, or, (2) Forest subordinates permitted to attend the course (and drawing half or full pay the while) who will acquire, by passing, a strong recommendation, but no claim, to immediate promotion to Sub-Assistant. Having already stated that no appointment should be made to the superior grades without a European training, it follows that the promotion of Sub-Assistants to the Assistant grade will cease. In view of this, the prospects of Sub-Assistants, *within the grade*, should be materially improved. At the conference at Dehra Dun, mentioned above, it was unanimously agreed to recommend that the pay of Sub-Assistants should run up to at least Rs. 400 per mensem. I am of opinion, moreover, that promotion should be by periodic increments, fixed in such a way that, in a normal case, the maximum rate of pay should be reached in twenty-six years' service, so as to give five years in that grade to count for pension.

I wish to especially call the attention of the Commission to the small number of appointments in this grade in the Bombay Presidency. I have already pointed out that the services of Sub-Assistants are absolutely necessary for efficient forest working, but in addition to this, there is the question of discipline, in connection with which a Forest officer above all others has great difficulties to con-

tend with. In every other department, even the Police, the rank and file are collected in larger or smaller bodies, while our guards are scattered singly or in pairs all over the country. Proper discipline in such a force can only be maintained by untiring supervision quite beyond the powers of the District Forest Officer single-handed. In the Police there is scarcely a district, I believe, but has its two or three Inspectors, notwithstanding the favorable conditions for enforcing discipline in that service, while for the whole Northern Circle we have only seven Sub-Assistants, no less than four of whom are attached to the two Thana divisions. From figures given in the *Indian Forester* I find the proportion of Sub-Assistants to rangers throughout India is as follows:—

Government of India ..	39 to 118.
Madras	15 to 41.
Bombay	13 to 36.

The writer, however, very pertinently adds: "We do not include men on less pay than Rs. 50, though Range officers in Bombay draw salaries down to Rs. 20 per mensem." I cannot give figures for the Presidency, but in the Northern Circle the true proportion is seven Sub-Assistants to 105 range officers. In my opinion, it is absolutely necessary to real efficiency that there should be a Sub-Assistant to about three ranges, or, say, at least 25 for the whole Northern Circle, provided there are enough extra Assistant Conservators to make the number up to 30. With a general list containing 25 appointments for the Northern Circle and a proportionate number for the two other circles, ranging from Rs. 150 to Rs. 400 per mensem, there will be a career thrown open which should attract respectable, well-educated natives.

I have already said, and emphatically repeat, that no Sub-Assistant should ever be put in charge of a division. As a Divisional Officer, I confess to a strong prejudice in favor of Europeans as Sub-Assistants (possibly because my experience has been limited to untrained men). They are more active and less afraid of taking responsibility. Nevertheless, I think no difference should be made, as long as Natives and Europeans are alike required to enter at the same door, viz., through Dehra Dun.

Subordinate Staff.—The Subordinate staff is an equally important part of the machinery of the Department. On its exertions depend, not only the collection of revenue, but also the improvement and conservation of our forests. The strength of the staff, as given in the annual report of the Northern Circle for 1885-86, is as follows:—

Rangers ..	3 on	Rs. 100
	4 on	„ 80
	6 on	„ 60
	12 on	„ 50
Foresters ..	20 on	„ 40
	30 on	„ 30
	30 on	„ 20
Guards ..	70 on	„ 15
	140 on	„ 12
	210 on	„ 10
	205 on	„ 9
	511 on	„ 8
	980 on	„ 7

The 105 men, down to the Rs. 20 grade (inclusive), are in charge of ranges, and are Executive officers, as distinguished from the remainder, who have protective duties. Of the Executive, a very few only have been trained at the Poona College. In my opinion no man should be promoted above Rs. 40 until he has been so trained. The Foresters' grade should also have a qualifying examination, following on a special vernacular course. I think the education of subordinates (executive) is a very important question. These men are, of course, all Natives, and in this circle mainly Hindus of high caste. They are, when young, if good specimens, tolerably active and intelligent, but, as now enlisted, very imperfectly educated. Their caste rules unfit them, however, for the life, and, if they do their duty, they rapidly break down, and then have not the moral influence of a superior education to fall back upon, to enforce discipline among their subordinates and to command respect among their equals in other departments.

Office Establishments.—Finally, there is one point in the Forest administration of this presidency which in my opinion urgently requires rectification, viz., the present account system, which requires a large staff of Clerks in each divisional office. This office becomes a drag on the movements of the Divisional Forest Officer and necessitates the carriage of very much extra tent accommodation and records, the cost of which might, I think, be more profitably utilized. The Executive and Office branches should be separated absolutely from one another (which is not the case at present), in which case, the Office branch would be left without any prizes to hope for. I would suggest as a remedy a Central Accounts Office, either for each circle under a special officer or for the whole presidency. In any case, arrangements should be made that the Checking office should be recruited from the Account branch of the Department, much extra work being now caused by the ignorance of forest working on the part of the Accountant-General's staff. I would wish, in fact, to see one complete chain of promotion from the humble Ranger's Clerk to the senior officer in charge of forest accounts. A special branch of Forest Accounts under a Comptroller obtains under the Government of India, and I believe under that of Madras, and a system to meet the requirements of this presidency could, no doubt, be elaborated without too much difficulty.

To sum up shortly—Entry to the superior gazetted grades (viz., Assistant Conservators and upwards,) should be open to all alike, after a regular training and on passing the required examinations connected therewith in England. At the same time, every endeavour should be made to obtain the best men by offering sufficient appointments to preclude the necessity of making appointments in this country direct and placing the trained officers so appointed on exactly the same footing as the members of other departments (Telegraph and Public Works Department, &c.,) trained under the same conditions as they are, in the matter of leave and pensions.

Sub-Assistant Conservators should only be appointed after a proper training at Dehra Dun. They should not be eligible for promotion to the

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Assistant grade, and should never be placed in charge of a Division; on the other hand, their number in this presidency should be largely increased, and their prospects *within the grade* materially improved by raising the maximum pay of a Sub-Assistant to Rs. 400 per mensem.

Rangers should, before appointment, be required to undergo a training at the Poona Engineering College, and facilities should be given to any of them, who wished and were fitted, to follow the course at Dehra Dun, qualifying for promotion to Sub-Assistant.

Foresters should before appointment be required to pass through a special vernacular course, and should similarly be allowed to qualify, at the Poona College, for Rangers' appointments.

The Office and Executive establishments should be kept quite separate. A separate branch, or Central Office of Forest Accounts, should be established. The whole Office establishment, from a Ranger's Clerk to the Senior Subordinate in the Accounts branch, being placed on one list for promotion.

The Hon. Khan Bahadur *Kazi Shahbudin.*

Do you know anything about the instruction given in the College of Science here?—I know the course of Forestry there.

Is it capable of improvement?—It is a very fair course, but it must necessarily be only of dry theoretical facts. The Working Officer of the Northern Division lectures three times a week, and of course it is a mere sketch, but it goes through the whole Forestry course. It is only a two months' course, but it is sufficient to open the eyes of the students to what they will have to look for when their practical work commences.

Has the College turned out men fit for forest work?—One of them is a first-rate man; some work he did in connection with working plans and data this year was really excellent work.

Is the course of instruction given sufficient to train men so as to enable them to take up Sub-Assistant's work at once?—They teach the whole course; but besides learning Chemistry and Botany, you must learn them in connection with Forestry, which can only be done in a Forest School.

The *President.*

Do you know any of the gentlemen who were mentioned by the last witness as having been promoted over the heads of others?—I have met Mr. Hornidge.

What is your opinion of him as an officer?—I saw his work only for a fortnight. Mr. Goundi is the only one I know of the men said to have been superseded. He is a Brahman.

What is your opinion of him?—I would not put him in charge of a Division on any account.

Is he a person of sufficient special merit to be promoted to the superior grade?—I have nothing to say against him, but I would certainly not on any condition put him in charge of a division. He did act for a month before me, and even in that short time he came to grief. It was an error of judgment in connection with sales; but it was a very bad one, and though there was nothing dishonorable about it, to the best of my belief, it was a piece of stupidity which would certainly have cost the Government thousands of rupees if I had not taken over charge in time; and I am not sure but it did not actually cost the Government a considerable sum. It was selling when there was a combination against him, instead of putting off the sale; or something of the kind. The great difficulty about Natives is to get any assistance in the matter of discipline; you never can get them to make an example.

Witness No. VII.—27*th July* 1887.

A. T. Shuttleworth, Esq.

Examination of A. T. SHUTTLEWORTH, Esq., Conservator of Forests, Northern Circle.

The *President.*

I joined the Indian Navy in 1856, and was pensioned when that Service was abolished. I joined the Forest Department in 1863 and rose to be Conservator, which post I have held eighteen years.

You have had an opportunity of witnessing the work of Native and European Sub-Assistants. What do you know of their relative capacity for work?—I give the preference to Europeans, because they are fonder of out-door life.

Have you had efficient men of both classes serving under you?—Very efficient men. I had a Brahman under me who was as good an officer as I could wish to have.

Is he alive?—He died about a month ago; his name was Mahajan.

How was it that he was not promoted to the Controlling grade?—He did not know English, and although he was very well fitted to be Sub-Assistant, I do not think he was so fitted to be a Divisional officer. He was on one occasion in charge of a Division, and it was at the express desire of the Government that a European officer was sent to supersede him. It was at the time that lands were being taken up for forests, and it was found he was unable to get sufficient work out of the Mamlatdars and also to carry the matter through with the Collector of the district. His ignorance of English was against him, and I do not think he had the necessary moral influence.

Can you mention any other good Native subordinates?—We had a Mahomedan, an excellent man. He joined on Rs. 8 and rose up to Rs. 150, and then he died. He came from Ratnaghiri, and was not an educated man.

Had the time arrived when his claims to promotion to the Controlling staff would be considered?—He could never have been promoted. These are the two best men I have had.

You have had other men who were satisfactory so far as the discharge of their duties was concerned?—To a certain degree.

Have you had educated Natives applying for these appointments?—I have had a few applications from men who had passed out of the College of Science and taken the Engineer's degree. There is a Parsi who joined four years ago as Sub-Assistant Conservator; he is an excellent officer. He has been acting for three years, and has only just become permanent.

Have any more Native gentlemen of this class been appointed Sub-Assistants?—One has been appointed in the Southern Circle, and I understand he is an excellent man. He is a Bengali. A number of Natives have passed through the Forest Class into the Ranger grade, but the entrance examination was a competitive one and only Brahmans could get through. The Mussulmans had not a chance. Those who passed were weakly men who were useless for forest work, and as a matter of fact, we lost one or two by death. Another of these men appointed to the Poona District got jungle fever and petitioned to be removed to the Deccan, "or else he would die." He was transferred to the Deccan and has turned out an excellent officer.

Do you consider that the appointment of Natives directly to Sub-Assistantships is a hardship on the men in the Ranger's grade?—It is to a certain degree.

Are the men appointed directly to the Sub-Assistants Grade better educated than the men of whom you speak as having passed through the Forest Class and entered the Ranger's grade?—Very much so.

Is it necessary to recruit for the Controlling service mainly in England?—I should say entirely in England. I am an untrained officer myself, and have often felt the disadvantage of not having had a professional education, as I do not think it is possible to get a professional education in this country. In an open competition, you would not get the raw material here as well as you could get it in England, and I think Government are entitled to get the best material they can. I think the men you would obtain out here would be much inferior in physique.

That is to say, the men you would get by competition?—Yes. It is my opinion that Brahmans would drive everybody else out of the Department, having more acute intelligence and being better heads at cramming, and that the efficiency of the Department would suffer. The forest life is a very hard one.

The Hon. Khan Bahadur *Kazi Shahbudin.*

Can they not enter at Cooper's Hill now?—Yes: but they would have to go through a very stiff examination to show their physical fitness.

Are the authorities very particular in that respect?—Yes. I heard from one gentleman that they had to run and walk for twenty-four miles with an athlete, and only those who came in at the finish were allowed to enter the competition; all those who fell out were at once rejected.

Is riding a *sine quâ non*?—Oh yes. We have to pass hours every day in the saddle.

The *President.*

Do you see any reason why the preliminary examination for a certain number of the appointments should not be held in India?—I think the examination ought to be held in England. If the prize is worth winning, it is worth while undergoing the risk.

The Hon. Khan Bahadur *Kazi Shahbudin.*

Do you see any practical objection to a simultaneous examination in India provided the conditions are the same?—My opinion is that a Forest Officer ought to be educated at a public school in England from the commencement. A Forest Officer has often to hold his own against the Collector, especially in a case of Forest privileges; and it wants a man of considerable moral courage to hold his own against a Commissioner and often against the Government. I have no doubt that in the future there will be Natives in the highest posts of the Forest Department. When I first came to the country, Natives used not to play cricket or go in for athletics; but their physique is improving every year, and when they arrive at a certain standard, it will be possible to give them appointments in the Forest Department where physical labour has to be encountered.

Do you not think that to require Natives to go to England on the chance of passing the entrance examination is to impose a hardship on them?—In my experience, Natives object to serve in parts of the country at a distance from their own province. I had an instance the other day, it was a case of promotion to a better-paid appointment; but, notwithstanding that, the Native officer refused to be transferred, saying that the climate would be inimical to his health, the water was not good, and so on.

Lieutenant-Colonel *Peyton.*

Have any of your Native Sub-Assistants of special merit been superseded?—No.

PROCEEDINGS

OF

THE SUB-COMMITTEE,

PUBLIC SERVICE COMMISSION.

MADRAS.
Forests.

Section I.—Note by the Sub-Committee.

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The rules of the Code compiled for the regulation of the establishments of the Forest Department in the territories under the administration of the Governor General apply with some modifications to the Forest establishments in the Presidencies of Madras and Bombay, and in these Presidencies the staff is similarly divided into three branches—the Controlling, the Executive, and the Protective Staff.

The Controlling Staff of the Forest Department in the Madras Presidency consists of one Conservator of the 1st grade, one Conservator of the 2nd grade, two Deputy Conservators of the 1st grade, three Deputy Conservators of the 2nd grade, four Deputy Conservators of the 3rd grade, four Deputy Conservators of the 4th grade, five Assistant Conservators of the 1st grade, five Assistant Conservators of the 2nd grade, and two Assistant Conservators of the 3rd grade.

One of the Assistant Conservators in the first grade is a Eurasian; with this exception all the Controlling appointments are held by non-domiciled Europeans.

On the Executive staff there are four Sub-Assistant Conservators of the 1st grade, of whom one is a domiciled European, one a Eurasian, one a Hindu, and the fourth a Mahomedan. There are five Sub-Assistant Conservators of the 2nd grade, of whom two are domiciled Europeans, one is a Eurasian, and two are Hindus; and there are three Probationary Sub-Assistant Conservators, of whom two are domiciled Europeans and one is a Hindu.

There are likewise one Forest Ranger of the 1st grade, a Eurasian, and five Forest Rangers of the 2nd grade, of whom one is a domiciled European and four are Eurasians. No other non-gazetted officer of the Forest Department in the Madras Presidency, except such as have purely clerical duties, receives a salary of ₹100.

It will be observed that there are in this Presidency only two grades of Sub-Assistant Conservators. The salaries sanctioned for these grades are similar to the salaries sanctioned for Sub-Assistant Conservators of the 2nd and 3rd grades serving in territories under the administration of the Government of India.

When vacancies on the Controlling Staff cannot be filled by officers recruited in England, deserving Sub-Assistant Conservators, who must, as a rule, be Statutory Natives of India, may, with the sanction of the Secretary of State, be promoted to the class of Assistant Conservator by the Governor in Council on the special recommendation of Conservators; but such officers are not permitted, except when they exhibit exceptional merit, to rise to the class of Deputy Conservator.

The rules prescribing examinations for officers on the Controlling Staff are similar to those contained in the Forest Code, with the exception that the subjects for the examination in Law are, in the Madras Presidency, somewhat more numerous, and that to qualify for promotion to the 1st grade of Assistant Conservators an officer must produce a certificate from the Conservator that he is sufficiently acquainted with the trees and shrubs of his district and with the Departmental Code of Accounts.

Assistant Conservators of the 3rd grade, appointed by the Local Government, are required to pass in Surveying.

Promotion is regulated by rules similar to those prescribed in the Forest Code.

Sub-Assistant Conservators, Forest Rangers and Foresters are appointed by Conservators. Forest Guards are appointed by the District Forest officer subject to the approval of the Collector of the district. Save in special cases, first appointments are made to the lowest grade in each class.

A Forester on first appointment must be under twenty-five years of age, have received a medical certificate of physical fitness, &c., have passed the examination for a degree, or the First in Arts examination of an Indian University, or the Matriculation examination and the Hand-writing test of the Middle School examination in the first class. Candidates who

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have passed none of these examinations may, however, be appointed on condition that they qualify within a period fixed by the Conservator.

Forest Guards may in special cases, with the sanction of the Government, be promoted to the class of Forester.

A Forester is not eligible for promotion to Ranger till he has passed an examination in Surveying and a departmental examination in Forestry and Accounts. If he be a European or a Eurasian, he is also required to pass an examination in the vernacular of the district. Ordinarily Forest Rangers are recruited by the promotion of Foresters who have either obtained the Ranger's certificate at the Dehra Dun Forest School or have passed the examinations above-mentioned.

When an appointment as Forest Ranger is given to a man outside the Department, he is required to pass the same examination as a Forester within the period prescribed in each case by the Conservator, and, until he has qualified in Surveying, Forestry, Accounts, and Language, he is regarded as being on probation and is not eligible for promotion to the Sub-Assistant Conservator class. Before he can receive such promotion he must also be reported to be active, intelligent, and capable of efficiently performing the duties of a District Forest officer.

A Sub-Assisant Conservator, whether recruited by promotion or direct appointment, is required to undergo, if he has not already undergone, a course of training at Dehra Dun, and to pass the departmental examination prescribed by G. O. No. 1079, dated 22nd September 1885.

The Departmental Member observes, with regard to the technical requirements of the Department, that inasmuch as its special aim is the maintenance and improvement of forests on scientific principles, it is requisite that its Superior staff should be trained in Europe and its Subordinate staff gradually passed through the School of Forestry at Dehra Dun. No Native gentlemen from the Presidency of Madras have as yet entered the Department through the competitive examination in England.

The classes who seek employment in the Subordinate staff are, the Departmental Member states, Europeans (chiefly domiciled), Eurasians, Hindus, and Mahomedans. He considers it no disparagement of Hindus to say that in some important respects they are, as a class, less qualified than the others for forest work. Intellectually, he allows, they are second to none; but he maintains that the service has few attractions for them except that it is employment under Government. He asserts that they do not like the work for its own sake, and that even when physically fit they cannot always support the roughness of the life which other men make light of, or at any rate patiently endure. He hesitates to say that by judicious selection suitable men might not ultimately be obtained from the Hindu community, but he expresses his conviction that at present many enter the Department and regret it afterwards—men who are good enough in their way, but quite unfitted for the unhealthiness and hardship of forest work. All other things being equal, he expresses his preference for Mahomedans and Hindus to Europeans and Eurasians.

He states that Forest Guards are obtained from the Hindu and Mahomedan communities and that the latter community perhaps supplies the best men.

It is to be observed that in the Madras Presidency the Office establishments are entirely distinct from the Executive.

In a further Note the Departmental Member has recorded his opinion on certain questions which are more or less pertinent to the present inquiry. He considers that in the Madras Presidency, although the expansion and improvement of the Executive staff are highly desirable, it would not meet an even more urgent want,—an increase of qualified superior officers to direct operations; and he mentions that the numerical weakness of the Controlling Staff since the reorganization in 1882 has been such that almost all leave has been refused, except on medical certificate. He states that in the Madras Presidency the Collector is really the chief Forest officer of his district, and that the District Forest officer is his assistant and representrative, and is equally with officers in the Revenue Department under his orders. He also states that for many years the selection and demarcation of reserve forests, the preparation of regular working-plans, and the organization of forest work generally, must engage attention; and in order to provide Collectors with adequate confidential assistance in undertaking the responsibility of such important measures, he considers that there should be a District Forest officer in each Collectorate, and in some districts more than one; and that the Forest officer should ordinarily be an officer of the Superior staff. He admits that in some of the minor forest districts or sub-divisions a well-trained and efficient Sub-Assistant might be sufficient; but he adds that the Department is so short-handed that there is a difficulty in finding even officers of this class, and that the result has been that in some cases two districts have been placed under one District Forest officer, and that in others a Sub-Assistant (in a recent instance, a very junior man), who would not otherwise have been selected for such a position, has had to take the place of a District Forest officer.

He considers that the extent to which Natives should be admitted to the Controlling grades entirely depends on their capacity to render efficient service in those grades; and inasmuch as this has yet to be proved, he thinks it impossible to say whether the larger admission of Natives to those grades would conduce to true economy. He points out that the Govern-

ment has recognized its duty to select the best material it could for the Department in the appointments it has made of three foreigners—Sir D. Brandis, Dr. Schlich and Mr. Ribbentrop—in preference to Englishmen, and that these appointments have fully justified the policy pursued; and he professes himself unable to recognize any right on the part of Natives to employment in the Department simply on the ground that they are Natives, or are educated, or are of good family. If, however, Natives are better or as well qualified as Englishmen, he considers that they should certainly be employed; but until this has been proved, he suggests that the introduction of Natives into a body of trained officers should be a gradual and tentative measure, and that every precaution should be taken against lowering the standard of efficiency. He observes that in comparing the qualifications of Natives and Englishmen certain race characteristics cannot be left out of account, and that it is in respect of these characteristics that he conceives that the Englishman is likely to make a better Forest officer, as he is a better explorer, pioneer, or colonist than the Native. Speaking from his knowledge of educated Native gentlemen who had proceeded to England for study, he deems them totally unsuited for forest work, though intellectually he allowed that they had few superiors. He calls attention to the circumstance that while Natives have proceeded to England for pleasure or on business, to study Law and Medicine, or to qualify for the Indian Civil Service, but few have attempted to enter the Forest Department. He thinks it probable that the pay and prospects are not considered worth the trouble and expense of the journey, but he believes that if there had been any important number of Native gentlemen anxious to enter the service, they would ere this have made the venture. He expresses his doubt whether in the Madras Presidency there is a single Native gentleman who cares to take service in the Forest Department, or who, even if the best training were provided at Dehra Dun, would proceed thither any more than to England to obtain it. He believes that the educated upper classes of Southern India would not furnish a contingent of really efficient officers; that they would not accept appointments out of their own Presidency; that they are less robust than the average Englishman, and cannot compare with him for endurance, while they have no real liking for the wild rough life of the forests, which most Forest officers readily acquire. He states that the Madras Forest Department is of too recent origin to have created a class of Natives capable of doing justice to promotion to the Controlling grades, and that among the older men he has never met one who was in any degree fitted for promotion to District Forest officer under present requirements.

With regard to the economy of employing Natives in the Department the Departmental Member conceives that if an English training were insisted on, Natives would probably claim, and in his opinion, be justly entitled to, the same pay as Europeans; and if an Indian training be provided, he considers it doubtful whether reduced pay would attract the right sort of men; while as the percentage of casualties and absentees would be greater among Natives than Europeans, it would be necessary to maintain a larger establishment.

Respecting the present conditions of service in the Department he expresses himself in accord with the trained officers, that the retention of the anomalous and invidious distinctions in the rules for retirement and pensions, as compared with the rules applicable to officers in other Departments, must operate more and more unfavorably as they become more widely known and understood. He also recommends such an alteration in the pension rules as may induce the senior untrained men to remain in the service no longer than is expedient. He states that the tone of the Executive staff would be improved by the creation of some higher-paid appointments in the Sub-Assistant Conservator's class, and that at present there are so few prizes for the Executive staff that it is hardly to be expected that the best men will be attracted to it.

As to the manner in which subordinates have hitherto acquitted themselves when placed in positions of trust and responsibility, such as the charge of a district or an important subdivision, he states that he has known fifteen instances in which subordinate officers have held such or similar appointments; that of the men in whom this trust was reposed, three had disgraced themselves and been dismissed for malpractices, and that the case of a fourth was still under appeal; that these officers were Eurasians; that of four others, Europeans and Eurasians, two had died, one had retired, and the fourth was still in the service, but that none of them had proved a success; that of five others who had done very well, three were Eurasians, one a European—a Non-Commissioned officer—and the fifth a domiciled European; that one of these had died after having served for years as Assistant and Deputy Conservator; that two others are Sub-Assistant Conservators acting for District officers. He adds that with one exception all the men he had mentioned had entered the Department in quite subordinate appointments; that all were self-taught and rose by merit; that of the remaining two who were also self-taught one was a Mahomedan and the other a Hindu; that both had served as District Forest officers, and that the former is now acting as Assistant Conservator. He considers the Mahomedan the better man of the two; that he has rendered steady good practical service throughout his career, but that he is not up to the mark of the present day in professional knowledge.

In 1885 the Director of Public Instruction raised the question as to the desirability of establishing a Forest class at the Agricultural College at Saidápet. His proposal was laid before the Board of Revenue, who consulted the Conservators of the Northern and Southern Divisions.

Colonel Campbell Walker, regarding the proposal as limited to the education of Foresters and Forest Rangers, who might in time be promoted to Sub-Assistant Conservatorships,

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expressed himself as opposed to it. He admitted that little real progress would be made in Forestry until the Department had obtained a staff of trained Forest Rangers; that an efficient Ranger must be able not only to carry out instructions, but to originate measures for the protection, improvement, and better management of the forests in his charge; and that to do so he must possess not only a knowledge of practical Forestry in all its branches, but also some knowledge of physical science, of land tenures and forest law, and some skill in surveying and engineering.

He allowed that a lad might, after obtaining some practical experience in the forests, with benefit attend lectures in the physical sciences and study surveying, &c., at the Agricultural College, and he also admitted that lads from the Southern Districts would more readily go to Saidápet than to a greater distance for instruction; but he considered that the surroundings of Saidápet were not calculated to imbue a young man with the practical experience of Forestry required in a Forester, while the climate and associations were not such as to engender energy and self-reliance. He regarded it as essential that theory and practice should go hand in hand in the instruction of Rangers; that a candidate should be amongst forest surroundings, and that his powers of observation and pride in his profession should be stimulated. He stated that he understood the Director of Public Instruction to suggest that the Forest students should spend a portion of the year in the forests with the Professor, a Forest officer; but he doubted whether this would prove sufficient, and he added that there is not now, nor is it likely that there would be for many years, a Forest officer available. He pointed out that, on the other hand, there were at the Forest School at Dehra Dun not only the advantages of forest surroundings, on which he laid so much stress, but the best staff of Forest officers that could be procured as Professors. He considered that the mere circumstances of travel, intimacy with officers from other parts of India, and the healthy spirit of emulation engendered at the Forest School, tended to enlarge the students' minds, to develop their powers of observation, and to foster a feeling of self-respect and pride in their profession which could not fail to be beneficial. He stated that he then had several students of the Agricultural College as Rangers (on probation) and as Foresters, but that, while he found them fairly intelligent and well conducted, they were lamentably wanting when called on to survey, plot, or perform any such work as they were supposed to have learnt at the College, whilst they had no idea of observing or acting for themselves.

Mr. Gamble considered that for the training of Rangers and Sub-Assistants the Department had the very best institution possible in the Imperial Forest School at Dehra Dun. He observed that the only objection that could be taken to it was its distance from Madras, but that considerations of distance did not prevent students from attending it from Burma, Assam, and parts of the Lower Provinces of Bengal, and that, in proceeding to a distant Imperial School, the students are brought into contact with men of other races and Provinces, and in every way experience a change of association whereby they gain to some extent those qualities which Madrasis mostly lacked—self-reliance, energy, and resource. He pointed out that the Forest School at Dehra Dun possesses the best staff of teachers of Forestry it is possible to bring together in India; that in the forests surrounding it it has types of various kinds suitable for teaching, while the forests in its immediate neighbourhood and in the Suvaliks contain trees of almost the same species as are found in the deciduous forests of Madras; and he expressed his conviction that it would be in the highest degree a retrograde step to abandon the system of sending Madras students to Dehra Dun.

With regard to Foresters he admitted that the better prospects contingent on employment in the Revenue Department impede the Forest Department from obtaining the services of the most intelligent men of the classes from which they were drawn, but inasmuch as in the case of these men theoretical instruction must, to be of any good, be preceded by some years of experience, he thought it advisable that the existing system should be maintained, that the men should be first employed on practical work in the forests, and that such as showed capacity and intelligence by passing the departmental tests should be sent to Dehra Dun for a course of two years' instruction.

The Board of Revenue recorded its opinion that the grounds on which the Conservators condemned the proposal were unanswerable and advocated the maintenance of the existing arrangements.

The Sub-Committee examined five witnesses at Madras.

Mr. Cherry, Deputy Conservator, stated that having studied Botany and Chemistry at a Science School, he had originally come to India to manage the estates of some relations, and had been largely concerned in looking after plantations when he obtained an appointment in the Forest Department. He mentioned that the district of which he held charge comprised 7,500 square miles; that in this area it is his duty to protect and enforce complicated rules over 2,500 square miles of scattered forests and 3,000 square miles of other land at the disposal of the Government; that he has the special care and direct working of 122 scattered reserves averaging upwards of 5,000 acres and aggregating 646,000; that his forests are divided into nine ranges, covering each about 800 square miles of area and containing each about 300 square miles of forest; that for his present work, which consists chiefly of general protection, collection of revenue, settlement, demarcation, surveys and division of forest reserves into blocks and compartments for working plans, he requires one Ranger for each range or more than double the number assigned to him, and that in his judgment one Ranger would eventually be required for

every 50 square miles of forest reserve. He stated that it is, however, to the Forester class that he thought a very large increase must be made as soon as working plans are introduced providing for systematic fellings, improvements, cuttings and other cultural operations in each year, and that a resident Forester to each 5,000 acres would be required when these operations are undertaken. Looking to the importance of the duties, he desired to see the pay of Foresters raised to ₹100 so as to attract both the better class of Natives and Europeans to take service in these grades.

He professed that he saw no advantage in retaining the grade of Sub-Assistant Conservator, but he proposed that the pay of Rangers in the highest grade should be raised to ₹250, the pay sanctioned for Sub-Assistant Conservators in the highest grade by the Government of India; and that the Subordinate staff should conclude its service and the Superior staff commence its service in the Assistant Conservator class, with salaries in the highest grade of ₹450, opportunity being at the same time given to any officer of the Subordinate staff to qualify for entrance to the Superior.

Mr. Cherry was of opinion that Assistant Conservators should commence their service in an Executive post, and that, if placed in control, their charge should be limited to a sub-division of a district. He would reserve the control of an entire district for Deputy Conservators. While he declared himself adverse to debar any class from qualifying for the Controlling staff, and admitted that he had had no experience of Natives as Controlling officers, he expressed his conviction that few Natives would be found who would care to qualify, and that they would sooner serve in any other Department on even less pay, with the exception of some Mahomedans and Eurasians, among whom he had found a few who were not afraid of a forest life and could endure its hardships. His experience of Natives is that they dislike jungle life and have been brought up to dread forest tracts; that they have a distaste for hard manual labor, the exposure to and changes of climate, the loneliness and discomforts of forest life, the separation from town and from kith and kin, the interruption of social and caste customs, and the risks of accidents and illness; and he added that the Natives have not the resources of occupation, of love of sport or wild scenery, or of the study of the animal and vegetable kingdoms that help to make the life bearable and even pleasant to an educated Englishman. He maintained also that, as a rule, Natives have not the requisite physique and cannot stand exercise in the sun even as well as a European.

Mr. Cherry mentioned that, as an Executive officer, a Forester has to live in, or constantly camp in, or move about his forests, personally directing operations in protection, demarcation, clearing of lines, cultural operations, fire-tracing, felling and conversion of trees, seasoning and removal of timber, collection of minor products, construction of roads, bridges and buildings, management of machinery and live-stock, and generally to carry out the annual plan of operations decided upon.

He stated that a Range officer's duties are very similar, but on a larger scale entailing more travelling, and that he would, in addition, have a large establishment under him and the check and adjustment of the revenue and expenditure in his range. He observed that the low pay of the Executive branch at present closes it to the better class of Europeans, which he thought was to be regretted as they might possibly prove to be better men for the work than the best Natives, and in many cases are absolutely necessary. He pointed out that the ordinary work in a forest is not dissimilar to that on a coffee or cinchona estate, and he observed that few owners of private estates would not prefer a European for the work to a Native superintendent.

He advocated the grant of more favorable leave rules and the substitution of a graduated scale of pensions to commence after ten years' service. He considered that a distinction might well be made in the pay of Natives and Europeans even when they are employed in the same grades.

He characterised the Dehra Dun Forest School as an admirable institution and likely to do much good. He mentioned that he had selected and sent up five men who had all done well in the school, and of whom three had returned; and although he had had too short experience of the returned men to speak conclusively, he considered that the school had certainly improved their knowledge of forest work, while, owing to their contact with Europeans and others at the school, their style of dress and habits were better fitted for forest life, and they had acquired a greater interest in their work. He stated that he would have preferred to see the school nearer Madras, and that if the expense of establishing a school at Madras is too great, he thought that a branch of the Department, entirely devoted to surveys and working-plans, might with advantage be organized for the Presidency, to which a certain number of reserve subordinates should be attached, either to undergo a preliminary training before proceeding to the Dehra Dun School, or, on their return, to be instructed in the application of the training of the school to particular local needs.

Allowing that it might be advantageous to send officers of the Controlling grades, on their first arrival in India, to the Dehra Dun School in order that they may become acquainted with the class of men who would work under them, and learn the vernaculars and how to apply their professional knowledge to the circumstances of the country, he believed that Controlling officers for many years to come must, and could only, get their forest training in Europe.

He stated that he had had experience of only two subordinates who had been placed in the position of District Forest officer; that one of them had been an efficient man, but had suc-

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cumbed to temptation when placed in independent charge and been convicted of embezzlement on a large scale; that the other, a Mahomedan, was an honest, painstaking man, but dull and slow at his work; that his chief experience had been of subordinates in the Forester and Ranger classes; that he had found Natives as subordinates in many respects very useful, but that he had been unable to repose entire confidence in them when placed in positions of trust and responsibility; and that they were inclined as far as possible to shirk actual forest work. In support of his opinion he mentioned that having, during the last two years, been largely engaged in the demarcation of reserved boundaries—a work requiring honesty, discretion and hard labour—he had found it necessary to do nearly all the work (about 300 miles) himself. He admitted that there are Natives to whom his remarks would not apply, and he thought it fair to add that subordinates in this Department are exposed to unusual temptations, that they are placed in an exceptional position, and that many of them had been selected without any educational qualification, but that a better educated class was now applying for employment. He mentioned that he had only two B.A.'s in his division, both of whom are employed in the office, and are good and useful men, but that neither of them would accept a field appointment when it was offered to them.

He stated that he had had a good deal of experience of private forests in the hands of Natives; that as a rule the owners hardly ever visited them or knew their limits and area; that the work is done by contractors; and that the sole object of the owners is to get the largest and quickest returns without any thought of the future.

In answer to Mr. Ramaswami Mudaliyar he stated that one of the men serving under him, who had been trained at Dehra Dun, is a Brahman and the other a domiciled European.

Colonel Campbell Walker stated that before his appointment to the Department in 1865 he had studied Forestry in Germany for six months; that he had taken notes of the system of training in that country and made reports on it to the Secretary of State, under whose instructions his reports had been published. He added that he had served for 23 years in the Forest Department in India; that he had been selected by the Government of India for service in New Zealand as Conservator of State Forests, and had received the thanks of that Government for his services and report.

He disclaimed any bias in favor of trained or untrained officers or of Europeans as distinct from Natives. He expressed his entire concurrence in the views of Mr. Ribbentrop as to the recruitment of the Forest Service. He considered that the Government requires a very high standard of officers both in the Controlling and Executive grades, and should endeavour to obtain the best men at the cheapest price irrespective of nationality or race distinctions. *Cæteris paribus* he would give the preference to Natives of India, whether they were Europeans born and domiciled in India, Eurasians or pure Natives. He regarded the present system of recruiting the Controlling grades in England as calculated to secure the best men available, though he expressed some doubt as to the expediency of the transfer of the training from the Continent to Cooper's Hill, where there is no atmosphere of Forestry. He was inclined to think that the pay and prospects of the officers would require improvement in order to secure in the future men of the stamp of those already in the Department; and he suggested that the age limit for entrance might be increased, the initial salaries augmented and more posts created with emoluments of ₹1,000 and upwards. He considered it necessary that the conditions of service in the subordinate grades should be improved; that there should be more prizes in the shape of subordinate appointments in the Sub-Assistant Conservator class, and that the maximum pay of that class should be raised to ₹400.

He advocated the eligibility of Natives for the Controlling grades, provided they possess the necessary qualifications, physical and mental, and have undergone a proper course of instruction, which, in his judgment, could not at present be obtained in India. He expressed himself doubtful whether the employment of Natives in the Controlling staff would result in any great economy; for he believed that suitable Natives would expect and could properly command no less salaries than are paid to the present European staff. He declared that he was not himself acquainted at present with any Natives fitted to hold Controlling posts. With regard to the two classes of upper subordinate officers, the self-taught and the trained, he mentioned a Mahomedan gentleman as an excellent example of the former. He stated that this officer has filled several positions of trust and responsibility as District Forest officer and Sub-divisional officer most creditably, but that he is ignorant of professional Forestry; and the same remark applies, in his opinion, to other untrained officers of the staff. Of the trained officers he mentioned with some approbation a Hindu, formerly a student at the Agricultural College in Madras and the holder of a certificate from the Forest School at Dehra Dun, but he pronounced him quite incompetent for the charge of a Forest Division. He added that another officer, a domiciled European, who is well educated and respectably connected, and has also passed with distinction at the Forest School, had failed when placed in charge of a sub-division. With every desire to further the greater employment of Natives in the Department, he expressed himself constrained to pronounce it impracticable at present. He observed that, with rare exceptions, Natives would never enter the Forest Department if they could obtain in other Departments anything like the salaries offered them in the former; and that this disinclination was especially manifest in Hindus, whose social training and habits, religious scruples, and family ties are incompatible with life in a jungle. On the other hand, he was convinced that the

salaries and prospects in the Department are not sufficient to attract and retain Europeans of the class and education required, and it appeared to him that the best classes to recruit from would be Mahomedans and Eurasians, though the former are unfortunately wanting in education, and the latter have often disappointed him. He mentioned that he had repeatedly applied to a Mahomedan officer in the Department to find him one of his co-religionists whom he could conscientiously recommend for a Ranger's or Forester's post, but without success. Of Eurasians he considered the failings to be, that they are averse to manual labour, are not familiar with or respected by the people, are as often deceived as regards rates of labour and prices as non-domiciled Europeans, and are frequently as physically weak and as much disinclined to a forest life as Natives. He stated that he did not despair of creating in time a class of Foresters from among the races resident in India, but he desired to emphasize the fact that such a class does not at present exist in Southern India, and he stated that it is difficult to find even Forest Guards who will live in the forests and do forest work.

He anticipated that in time a large field of employment would be open to Natives of good general education and special professional training, not only in the State Department, but also in the management of communal and private forests.

He agreed with Sir D. Brandis that the staff of Rangers must be largely increased. He mentioned that there were at present eighteen Madrasi students attending the Forest School, of whom a large percentage were Hindus; that nine Hindus had already qualified as certificated Rangers; and that one Mahomedan had attended the school, but had obtained only a Forester's certificate.

Allusion having been made by witnesses examined elsewhere to the Native administration of forests in Mysore, Colonel Campbell Walker was examined on this point.

He stated that as far as his observations allowed him to form an opinion, the forests of that State had deteriorated very considerably since its rendition; that his observations had been confirmed by information he had received from the Dewan and other officers in the service of the Maharajah; that a European Inspector-General of Forests had recently been appointed; that three Brahman B.A.s with Forest Rangers' certificates had been deputed to assist him; and that, on the whole, it might be said that the attempt to administer the forests by an untrained or non-official agency, European or Native, had failed.

Mr. E. D. M. Hooper, who obtained his appointment by competition in 1871 and had been trained at Nancy, was of opinion that the Controlling staff must continue to be recruited, as at present, by Europeans trained in Europe; but that instances of exceptional merit among trained Native Rangers might be rewarded by promotion to a Controlling post. He, however, considered that it would be necessary to make such an exceptional appointment only after the Native officer had undergone a careful probation as a Sub-divisional officer under more than one District Forest officer, and above all, that he should never, in his new position, be brought into contact with either the people or subordinates with whom he had associated as Ranger.

Mr. Hooper stated that he did not at present know any Forest subordinate who could carry on successfully the work of a District Forest officer. He asserted that the objects of Forest Conservancy are unknown to the majority of the subordinate establishment as well as to the general Native public; that it is regarded as an interference with the customary rights of the Native population for the purpose of raising a revenue subsidiary to the Land revenue, and that the Forest officer is looked upon as a public enemy; consequently he observed that in many districts a Forest officer has to carry on his work not only without the assistance, but also in face of the passive opposition of Subordinate Revenue officers, and that therefore he needs something more than mere intellectual qualities if his work is not to be barren of all good result beyond the revenue yielded by the forests in his charge. He also pointed out that the Forest officer could allow his forests to be neglected without the neglect being apparent to the Government for a considerable time. He stated that the Forest officer, as technical adviser of the Collector of the district, has to show tact and discretion to carry through a continuous forest policy, however much the views of succeeding Collectors might vary; that it is necessary that he should give no halting advice, and, above all, should not hesitate to support by argument measures which he considers important; that, on the other hand, a Forest officer has to turn a deaf ear to applications for favors from all classes of men, of whom some do not scruple to offer material advantages in return for a little blindness to the interests of the Government.

The position of a Forest officer in charge of a district being beset with such difficulties,—while he did not apprehend that there was any danger of absolute dishonesty on the part of Rangers of good education, whose self-respect and *esprit de corps* had been cultivated at the Forest School—Mr. Hooper considered that there were very strong objections at present to the employment of a Native District Forest officer except under very exceptional circumstances. Entertaining the views he had expressed, he professed himself unable to support the proposal that the course of studies at Dehra Dun should be extended with a view to train Natives as District Forest officers; but inasmuch as at present the recruits are rarely of a class that has passed beyond the Middle School examination test, he recommended that the educational qualification for admission to the school should be raised. He stated that the men who apply for employment, are, with very few exceptions, prompted to do so from failure to find it elsewhere, and that young men preferred a permanent post on ₹20 in a Collector's office to that of a Forest Ranger on ₹50.

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He stated that he had on one occasion succeeded a Ranger who had been temporarily in charge of a district, and that his predecessor's fear of responsibility had exposed the Government to litigation. He added, however, that he had known in Upper India a Native Forest officer, a Mahomedan, whose administration was successful, and who had speedily risen to a Conservatorship, but that the charge which he held was not a difficult one.

Shaik Mahomed Ali stated that he had originally served as Regimental Munshi, that he had subsequently entered the Forest Department when about 20 years of age, and that he had held charge of five different districts, in which at the time the principal work carried on had been the cutting and disposal of timber, and, to a limited extent, sowing.

He considered that the Controlling grades could not at present be wholly recruited in India, and he stated that having been asked to name gentlemen of his own race for appointment to the Forest Service, he had experienced a difficulty in finding men of fair education combined with a sufficient knowledge of Forestry and power to control a large district. He stated that Mahomedans take readily to forest life and have no distaste for out-door pursuits. He advocated the promotion of Subordinates to the Controlling grade in exceptional cases. He mentioned that Europeans and Eurasians had served under him in Coimbatore, South Arcot and Canara; that they were fairly educated men and fairly good Forest officers, but not sufficiently so to be fit for Controlling appointments. He was of opinion that men who have undergone training at the Dehra Dun School are superior to those who have not done so.

Mr. Gurunatha Pillai, a Native of Jaffna in Ceylon, stated that he had attended the Forest School at Dehra and obtained a Ranger's certificate; that he had held for a month charge of a working district; and that he had been employed on special duty in valuing forests in Coimbatore and in collecting information for making working plans. He considered that the scientific training given at Dehra Dun had a practical value; and that a man could not be an efficient Ranger without some scientific instruction. He thought that the pay of the Subordinate staff is too low considering the temptations to which they are exposed, and that, by increasing the pay, a better class of men would be obtained. He mentioned that before proceeding to Dehra Dun he had attended for three years the Saidápet College of Agriculture, where he had been instructed in Chemistry, Botany, Surveying and practical Agriculture; that four or five of his fellow-students at the Agricultural College had entered the Forest Department, and that one of them was a Native Christian, another a Brahman, and one or two were Eurasians.

He complained that the length of service required for pension is unreasonable, if regard be had to the arduous character of employment in the Forest Department.

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Section II.—Note by the Departmental Member.

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1. The Staff of the Madras Forest Department is divided into "Superior" and "Subordinate." The Superior staff is composed of Conservators, Deputy Conservators and Assistants. First appointments are given to candidates selected by Her Majesty's Secretary of State for India who have received a professional training under the regulations laid down from time to time by that authority, and such appointments are made to the third grade of Assistant Conservator.

1. The present regulations of the Department as to admission to the various grades and ranks of which it is composed and to promotion therein.

Deserving Sub-Assistant Conservators, who must, as a rule, be "Natives of India," may be promoted to the class of Assistant Conservator by the Governor in Council, on the special recommendation of Conservators, but such officers may not, save in cases of exceptional merit, rise to the class of Deputy Conservator.

2. An Assistant Conservator of the third grade is not eligible for promotion to the second grade till he passes in a principal language of his district, by the Lower Standard, as prescribed for Civilians, and obtains a certificate from the Conservator that he is competent to hold charge of a Forest Range.

3. To qualify for promotion to the first grade he must pass—

I. The Higher Standard in a principal language or, with the sanction of the Board, the Lower Standard in a second language which is also "principal."

II. An examination in law embracing the Forest Act and Rules, the Land Acquisition Act, the Madras Boundaries Act, the Easements Act, the Cattle Trespass Act and selected chapters of the Penal Code.

III. An examination in Revenue bearing on certain selected portions of the Standing Orders of the Board of Revenue. He must also obtain a certificate from the Conservator that he is competent to hold charge of a Forest Division and is sufficiently acquainted with the trees and shrubs of his district and the Departmental Code of Accounts, &c.

Assistant Conservators of the third grade, who have not been appointed by the Secretary of State for India, in addition to the examinations above described, are required to pass in Surveying.

4. Promotion from third to second grade of Assistant may be made irrespective of the numbers in each, but no officiating promotions may be made to the second grade. Promotion to the first grade and to the several grades of Deputy Conservator is regulated by vacancies. All such promotions, as well as the appointment and promotion of Conservators, are made by Government and cannot, under any circumstances, be claimed on grounds of seniority alone.

5. *The Subordinate Staff* consists of Sub-Assistant Conservators, Forest Rangers, Foresters and Forest Guards. The first three classes are appointed by the Conservator, the fourth by the District Forest-officer subject to the Collector's approval. Save in special cases first appointments are made to the lowest grade in each class.

6. A Forester, on first appointment, must be under twenty-five years of age. He must either be a Graduate of an Indian University, hold the First in Arts certificate of such University, or have passed the Matriculation and the Handwriting test of the Middle School examination in the first class. He is also required to produce a medical certificate of physical fitness. Candidates who have passed none of these examinations may, however, be appointed as Foresters, on condition that they qualify within a period of probation fixed by the Conservator. The Conservator may also, in special cases, promote deserving Forest Guards to the class of Forester, reporting each such appointment for the sanction of Government.

A Forester is not eligible for promotion to Ranger till he passes an examination in Surveying and a Departmental examination in Forestry and Accounts. If he be a European or Eurasian, he is required to pass in a vernacular by "the third-class test."

7. A Forest Ranger on first appointment is required to pass the same preliminary examinations as a Forester and is held to be on probation till he qualifies in Surveying, Forestry and Accounts, the time of such probation being fixed in each case by the Conservator. The intention is, however, that appointments to the class of Ranger shall ordinarily be made only by the promotion of Foresters who have either obtained the Ranger's certificate at the Dehra Dún Forest School, or qualified by the tests described in the preceding paragraphs.

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8. A Forest Ranger is not eligible, except by special sanction of Government, for promotion to Sub-Assistant Conservator till he qualifies in Language, Surveying, Forestry and Accounts. He must also be reported to be active, intelligent and capable of efficiently performing the duties of a District Forest-officer.

9. Except in the cases reserved for the special sanction of Government, the promotion of Foresters, Rangers and Sub-Assistants from class to class and grade to grade rests with the Conservator.

10. A Sub-Assistant, on first appointment, whether selected from the ranks of Forest Ranger or appointed direct, is required to undergo the course of training at Dehra Dún and to qualify by the various Departmental tests (*vide* G.O., dated 22nd September 1885, No. 1079).

11. The pay of the Superior staff, as distributed amongst its various classes and grades, is shown in the annexed table. All travelling allowances have been excluded.

2. The conditions of service in the Department in regard to pay, pension and furlough.

Classes.	Grades.			
	First.	Second.	Third.	Fourth.
	Rs.	Rs.	Rs.	Rs.
Conservators	1,250—1,500	1,000—1,250	..	..
Deputy Conservators	900	800	650	550
Assistant do.	450	350	250	..

12. The pensions of officers appointed by Her Majesty's Secretary of State for India are governed by sections 67, 68, 96 and 114 of Chapter IX of the Civil Pension Code, whilst the remaining sections apply to the case of other officers.

13. Furlough is granted under chapter V of the Civil Leave Code to officers appointed by Her Majesty's Secretary of State and those who may have been specially admitted to the more favorable leave rules; to all others, it is granted under chapter X.

14. The pay of the Subordinate staff is as under, exclusive of travelling allowances :—

Classes.	Grades.				
	First.	Second.	Third.	Fourth	Fifth.
	Rs.	Rs.	Rs.	Rs.	Rs.
Sub-Assistant	200	150	..	..	..
Forest Ranger	125	100	80	60	50
Forester	40	30	20—25	15—20	..
Forest Guard	Not graded, from 6—12.				

15. All pensions are governed by the rules in chapter IX of the Civil Pension Code and furlough by the provisions of chapter X of the Civil Leave Code.

16. Concerning "the technical requirements of the Department," I think they are scarcely separable from "the professional attainments essential to efficient service in its various branches." Briefly stated, and apart from all financial considerations and questions directly or indirectly involving public interests, which are more matters of *general* administration, the special aim of the Department is the maintenance and improvement of forests on scientific principles, and to this end it requires its Superior staff to be trained in England, while its Subordinate staff is being gradually passed through the School of Forestry at Dehra Dún.

3. The technical requirements of the Department and the professional attainments essential to efficient service in its various branches.

17. * * * *

20. The Superior staff is open by competitive examination in England to all natural-born British subjects above 17 and under 21 years of age who are unmarried. I know of no Native gentleman having entered the Department, and none but Europeans have served in Madras.

4. The classes of the community who seek to be employed in the Department and the comparative capacity of each for rendering efficient service thereon.

21. The classes who seek employment in the Subordinate staff are Europeans (chiefly "domiciled"), Eurasians, Hindus and Mahomedans. It is no disparagement to say that in some important respects the Hindus are, *as a class*, less qualified than the others for Forest work. Intellectually they are second to none, but the service has few attractions for them beyond the fact of its being Government employment; they do not like the work for its own sake, and even when "physically fit" in the ordinary acceptation of the term, they cannot always stand the roughness of the life which

* In this paragraph a detailed statement was given of the subjects of study in the Forest classes at the Royal College of Engineering which are shown at length in Major Bailey's Note.

other men make light of, or, at any rate, endure patiently. I am far from saying that by judicious selection and encouragement men of the right sort cannot ultimately be obtained from the Hindu community, but I am sure that at present many enter the Department and regret it afterwards—good enough men in their way too, but quite unfitted for the hardships and unhealthiness of Forest work. All other things being equal, I myself prefer Mussalmans and Hindus to Europeans and Eurasians.

22. Nothing has been said respecting the "professional attainments" of Forest Guards; all that is necessary is that the men should be active, hardy, intelligent and respectable. They are obtained from the Hindu and Mahomedan communities, the latter perhaps supplying the best men on the whole.

23. Office establishments have been left out. In the districts they form a branch of the Collector's office and are quite distinct from the Executive ranks.

The office establishments of the two Conservators and of the Examiner are also quite apart from the Executive.

5. The existing organization and constitution of the Department.

24. The required information on this point will be found in the enclosed statement in prescribed form.

Existing organization and constitution of the Madras Forest Department.

1	2	3	4						
			Number of appointments in each class or grade now held by—						
			1	2	3	4 Natives of India.			
Department.	Total number of gazetted appointments or of appointments, not being purely clerical, of salaries of Rs. 100 and upwards.	Distribution of the gazetted appointments and the other appointments mentioned in column 2 amongst classes and grades, with rate of pay attached to each.	Europeans not domiciled in India.	Europeans domiciled in India.	Eurasians.	*a* Hindus.	*b* Mahomedans.	*c* Others.	*d* Total.
Forest Department.	27 Gazetted appointments.	1 Conservator, 1st grade, Rs. 1,250—1,500.	1	..	..	..	..	..	..
		1 Conservator, 2nd grade, Rs. 1,000—1,250.	1	..	..	..	..	..	..
		2 Deputy Conservators, 1st grade, Rs. 900.	2	..	..	..	..	..	..
		3 Deputy Conservators, 2nd grade, Rs. 800.	3	..	..	..	..	..	..
		4 Deputy Conservators, 3rd grade, Rs. 650.	4	..	..	..	..	..	..
		4 Deputy Conservators, 4th grade, Rs. 550.	4	..	..	..	..	..	..
	18 Non-gazetted appointments of salaries of Rs. 100 and above.	5 Assistant Conservators, 1st grade, Rs. 450.	4	..	1	..	..	..	..
		5 Assistant Conservators, 2nd grade, Rs. 350.	5	..	..	..	..	..	..
		2 Assistant Conservators, 3rd grade, Rs. 250.	2	..	..	..	..	..	..
	45 Total.	4 Sub-Assistant Conservators, 1st grade, Rs. 200.	..	1	1	1	1	..	2
		5 Sub-Assistant Conservators, 2nd grade, Rs. 150.	..	2	1	2	..	..	2
		3 Probationary Sub-Assistant Conservators, Rs. 100.	..	2	..	1	..	..	1
		1 Forest Ranger, 1st grade, Rs. 125.	..	..	1	..	..	..	..
		5 Forest Rangers, 2nd grade, Rs. 100.	..	1	4	..	..	..	..
		Total ..	26	6	8	4	1	..	5

Further Note by the Departmental Member.

I offer the following remarks in continuation of the Departmental note already submitted in reply to the Committee's circular.

I am not a trained officer. When I joined the Department nearly 18 years ago as an Assistant Conservator, on probation, there were no trained officers. I have served in the districts of Coimbatore, Malabar and Salem. For the last five years I have been Departmental Accounts officer under the Accountant-General, during which time I have also had charge of the Central offices of the Conservators, Northern and Southern Circles.

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1. Does the great extent of Forests under the Department, the comparative numerical weakness of its Controlling staff and the heavy expense attendant upon any adequate increase thereof indicate the advisability of improving and expanding the Executive, *e.g.*, Foresters, Forest Rangers and Sub-Assistant Conservators?—The numerical weakness of the Controlling staff is such that since 1882, when the Department was reorganized, the Act introduced and operations largely extended, almost all leave has been refused save on medical certificate. The expansion and improvement of the Executive, though in themselves highly desirable, would not in my opinion, even if possible of immediate accomplishment, meet the necessity of the case which is a supply of qualified Superior officers to *direct* operations.

For years to come the selection and demarcation of Reserved Forests, the preparation of regular working plans and the organization of Forest work generally must engage attention, and I think there are few Collectors who would care to retain the heavy responsibility of such important measures without adequate confidential assistance. The Collector is really the chief Forest Officer of his District and the District Forest Officer is his assistant and representative and is equally with other officers of the Revenue Department under his orders. There should be a District Forest Officer to each Collectorate and in some of the larger Forest districts two have been found necessary and to be of real service, the District Forest Officer should be an officer of the Superior staff. For some of the minor Forest districts, or sub-divisions of a district, a well-trained and efficient Sub-Assistant may answer, but we are so short-handed that there is a difficulty in finding even this class of officer. The result is that in some cases two districts have been placed under one District Forest-officer and in others a Sub-Assistant (in one recent instance a very junior man), who would not otherwise have been selected for such a position, has had to take the place of a District Forest-officer.

2. To what extent should the Controlling grades (Conservators, Deputy and Assistant Conservators) be open to Natives, and how far would a change in this direction conduce to true economy and efficiency?—The extent to which Natives should be admitted to the Controlling grades entirely depends on their capacity to render efficient service therein. This, I submit, has not yet been proved and it is therefore, I think, impossible to say whether a change in that direction would conduce to true economy. Assuming that Native agency would be the cheapest, which I doubt, we all know that the cheapest servant is not necessarily the best.

It is for Government to select the best material it can for each Department. Sir D. Brandis, Dr. Schilch and Mr. Ribbenthrop are instances in point. They were chosen in preference to Englishmen because there had not then been time to organize a professionally-trained body of English Forest-officers. They are all foreigners and each as filled the post of Inspector-General to the Government of India and has, I am sure, amply justified his appointment. If therefore Natives are as good or better than Englishmen by all means let them also be employed. They cannot claim employment, of right, simply because they are Natives, or solely because they are educated or of good family. There is a body of trained officers now, and if it is in contemplation to replace or largely supplement them by Natives, I trust the change will be instituted gradually, as a tentative measure, and with every precaution against lowering the standard of efficiency.

There are, I submit, certain characteristics of race which should not be left out of account in dealing with the comparative merits of Natives and Englishmen. It is in respect of these that the Englishman is, in my opinion, as much calculated to make a better Forester as he is a better explorer, pioneer or colonist than the Native.

Five and twenty years ago, at a private tutors, I made the acquaintance of, I believe, the first Native gentlemen who ever came to England to read for the Indian Civil Service. One got in and another afterwards became a Barrister, I forgot what happened to the rest. Taking them as average specimens I should now say, speaking from memory, that they were totally unsuited to Forest work, and I am sure that all of us who were reading with them would say the same. Intellectually they had few superiors.

There are at present two ways by which Natives may enter the Superior staff:—

(1) by the competitive examination and subsequent training in England, and
(2) by meritorious service as a Sub-Assistant Conservator. Touching the first it is noteworthy that while many Native gentlemen have visited England on business or pleasure, to study law and medicine or to qualify for the Indian Civil Service, none from Southern India have ever tried the Forest Department and, I believe, only two from other parts. Probably, the pay and prospects are not considered worth the trouble and expense of the journey, but I think if there were any important number of Native gentlemen anxious to take service, without having things made too easy for them, some would ere this have made the venture. As regards the second existing means of entering the higher ranks, few Natives have been found qualified. The Madras Department on its present scale is of too recent origin to have created that class of men capable of doing justice to such promotion, and amongst the older men I have never met one who was in any degree fitted for the position of District Forest-officer under present requirements.

For my own part I doubt if there is a single Native gentleman in this Presidency who knows or cares two straws about service in the Forest Department, or who, even if we could provide him

with the best of training at Dehra Dún, would go there any more than to England. I cannot imagine the educated upper classes of Southern India at present furnishing a contingent of really efficient Forest Officers. I am much mistaken if appointments in their own Presidency would not have to be guaranteed them, and I doubt if they would be of much use anywhere else. They are not so robust as the average Englishman and cannot compare with him for endurance, not to mention the real liking for the wild rough life of the forests which most Forest Officers, in whom it may not be inherent, readily acquire. In Coimbatore District I passed three-fourths of the year in camp, rarely visiting head-quarters and very seldom seeing a European. I have been eleven months in the forests, for eight of which I never spoke to a soul except my own servants and coolies. Others have had much the same experience, and no one who is not prepared to do likewise, is likely to make a good Forest Officer.

If English training were insisted on Natives would probably claim, and, I think, be justly entitled to, the same pay as Europeans. If on the other hand, Indian training were provided, I doubt if reduced pay would attract the right sort, besides which we should have to take into account a heavy outlay for European Professors, &c. I believe moreover the percentage of casualties and absentees would be greater among Natives than European, in which case a larger establishment would be required.

3. Are the present conditions of service such as to secure the best men available ?—As regards the Superior staff I concur in the opinion of all trained officers with whom I have spoken on the subject, that the retention of certain anomalous and invidious distinctions in the rules for retirement and pension, as compared with other Departments, must operate more and more unfavorably as they become more widely known and understood. I consider it is a mistake also to compel the senior untrained men to remain in the Service longer than is expedient owing to unfavorable retirement rules. They have done and are doing precisely the same work, undergo the same risks and hardships and it is unreasonable to expect that they will retain health and efficiency to a later age than the trained officers, for whom indeed it is in many cases desirable that they should make room.

For the Executive staff I should say that it would improve the tone of the Service to create higher-paid appointments in the Sub-Assistant Conservator's class. There are so few prizes in the Department, that until some such measure as that indicated by the Inspector-General is adopted, we can scarcely expect to attract the best men available. Beyond this I do not think it is necessary to go. I am unaware of the existence of any general dissatisfaction with the conditions of service in the Department.

4. Is it advisable to reorganize the School of Forestry at Dehra Dún on a footing which will enable it to supply efficient recruits for an enhanced Executive, and ultimately become a source from which the future Controlling staff shall be drawn ?—On this point I have nothing to add to the evidence of officers better qualified than myself to give an opinion. No doubt the School can be enlarged so as to provide for a stronger Executive, but if it is to be rendered equal to the efficient training of the Controlling staff, I do not see how heavy outlay can well be avoided. It would be necessary to have an upper and a lower school and, probably, a separate staff of Professors for each; in any case the professional staff would have to be largely increased, which would mean a considerable charge against the Department. From what I have seen of our Rangers, I think it is unlikely that they would be able to follow the same course of instruction as would be necessary for the officers of higher educational attainments intended for the Controlling staff.

5. How have officers of the Subordinate staff hitherto acquitted themselves when placed in positions of trust and responsibility such as the position of a District Forest Officer in charge of an important sub-division of a District. What has been the nature of their duties when so employed, what their previous training and to what classes of the community have they belonged ?—I have known 15 instances of Subordinate officers being placed in positions of trust and responsibility either as District Forest-officer or in appointments of similar importance. Of these, three disgraced themselves and were dismissed for malpractices and a fourth case is now under appeal. All were Eurasians. Out of four others, two Europeans and two Eurasians, two have died, one has retired and the fourth is still in the Department. None of these proved a success. Of five others who have all done very well, three are Eurasians, one a European Non-commissioned Officer, and the fifth a domiciled European. One of them is dead; he served for years as Assistant and Deputy Conservator, two are now Deputy Conservators, and two others are Sub-Assistants and Acting District Forest-officers. The European is perhaps one of the safest practical self-taught men we have. All of the above with one exception entered the Department in quite subordinate appointments; most of them before professional training or Dehra Dún was thought of, and all were self-taught. They rose by merit. Of the remaining two, one is a Mahomedan and the other a Hindu; both have served as District Forest Officers and the former is Acting Assistant Conservator. They are both self-taught. The former is the better man of the two, and has rendered steady, good, practical service throughout his career, but is not up to the mark of the present day in professional knowledge.

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READ—the following G.O., dated 27th May 1885, No. 624, Revenue :—

Read—the following Proceedings of the Board of Revenue, dated 30th April 1885, No. $\frac{1291}{\text{Forest 240}}$:—

Read—the following letter from Major I. CAMPBELL WALKER, Conservator of Forests, in charge of Southern Division, to the Secretary to the Board of Revenue, dated Madras, 27th March 1885, No. 2704 :—

In accordance with the instructions conveyed in Board's Proceedings, No. $\frac{769}{\text{Forest 148,}}$ dated 6th instant, I have the honor to report on the proposal to establish a School of Forestry in connection with the Agricultural College at Saidápet.

2. As the Board and Government are aware, our Superior staff is now recruited by the appointment of trained officers by the Secretary of State, and occasionally by the promotion of deserving Sub-Assistant Conservators on the special recommendation of the Conservator.

The scheme for a local School of Forestry would, therefore, if adopted, have to be restricted to training men for the Subordinate staff, *i.e.*, Forest Guards, Foresters and Forest Rangers.

3. Forest Guards are rarely drawn from the educated classes, and although we hope by degrees to attract men of a better class and education, eligible for promotion after they acquire experience, the arduous duties and constant exposure offer serious obstacles not likely to be overcome for many years.

Our consideration may, therefore, for the present, be restricted to the training of Foresters (Rs. 20 to 40) and Forest Rangers (Rs. 50 to 125), from which latter class the Sub-Assistant Conservators (Rs. 150 to 200) are recruited.

4. Now, the first requisites for a Forester are a sound elementary education as distinct from a very high one, a good constitution, natural powers of observation and lots of common sense.

Given these and experience, the teaching of his superiors and emulation will do the rest, if there is any stuff in the lad at all, and make him a practical Forester in a couple of years I refer, of course, to the legitimate duties of a Forester as a member of the Protective staff in charge of a Sub-Range.

At present, many of our Foresters are in charge of Ranges, owing to the want of qualified men in the Ranger's class competent to supervise and direct several Foresters.

5. The Forest Ranger is, or ought to be, really the key-stone of the Department, and until we have a staff of Forest Rangers who have studied and know their profession, we shall make little real progress in Forestry. He is the Executive officer, corresponding with the "Ober-Forster" in Germany and the "Sous-Inspecteur" in France, and should be able not merely to carry out instructions received, but originate measures for the protection, improvement and better management of the forest in his charge.

Much practical experience, intelligence and education of a high order are necessary to make a good Ranger.

Besides practical Forestry in all its branches, he should be a good surveyor and draftsman, be able to level and construct forest roads, bridges, timber slips and houses.

This necessitates an acquaintance with higher Mathematics, Mensuration and Trigonometry, besides which he should have mastered the elements of Botany and Physiology, and be intimate with the system of land tenures and the Revenue and Criminal Law so far as it refers to forest matters not provided for in the Special Act, with which and all Departmental rules he must, of course, be fully conversant. If we add to the above energy and thorough trustworthiness, we shall have formed some idea of the ideal Forest Ranger.

6. Having thus arrived at what we want in the shape of Foresters and Rangers, it remains to consider whether the establishment of a Forest School at Saidápet is likely to ensure our getting it.

I regret to say that I fear it will not. The surroundings of Saidápet are not calculated to imbue a young man with the practical experience of Forestry and a forest life which we require in a Forester, whilst the climate and associations are not such as to engender energy and self-reliance. It is true that a lad, after obtaining some practical experience in the forests, might with benefit attend lectures and qualify in Surveying, Mensuration, &c. This, and the fact that men from the Southern districts would more readily go to Saidápet than to a greater distance from home, are the only advantages which, in my opinion, can be urged in support of the proposal as regards the training of men for the Foresters' class.

As regards the Rangers' class, it is very essential that theory and practice should go, as it were, hand in hand; that the candidate should be amongst forest surroundings and learn to talk and think forests, besides attending lectures on Forestry and kindred subjects; and, above all, that his powers of observation and pride in his profession should be stimulated.

I fear there would be little chance of this at Saidápet. The Director of Public Instruction suggests that the Forest students should spend a portion of the year in the forests with the Professor (a Forest officer). I doubt if this would prove sufficient; and we have at present no Forest Officer available, and are not likely to have one for many years.

7. At the Forest School at Dehra Dún on the other hand, we have not only all the forest surroundings and the advantages of which I have laid so much stress, but the best staff of Forest-officers as Professors which can be procured.

Besides these advantages, I am inclined to think that the mere circumstances of travel, mixing with Forest Officers from other parts of India, and the healthy spirit of emulation engendered at

the Dehra School, tend to open the men's minds, develop their powers of observation, and foster a feeling of self-respect and pride in their profession, which cannot fail to do much good.

In this connection, I would invite attention to Mr. Brandis' remarks in paragraphs 264 and 265 of his Suggestions, with the tenor of which I fully agree.

With every wish to see a Forest School for Madras, and recognizing its advantages in some respects, I regret that I cannot support the proposal to establish one in connection with the Agricultural College at Saidápet, and do not see our way to doing so elsewhere at present. At the same time, if the teaching of Surveying, Botany, Chemistry, &c., at the Agricultural College is made more practical, as I believe is intended, it will certainly be of use to us in obtaining recruits.

I have now several Agricultural College students as Rangers (on probation) and Foresters, but, whilst I find them as a rule fairly intelligent and well-conducted, they are lamentably wanting when called on actually to survey, plot or perform any such work which they are presumed to have learnt at the College, whilst they have no idea of observing or acting for themselves. In fact, their education appears to have been purely theoretical, not practical.

Read—the following letter from J. S. GAMBLE, Esq., Conservator of Forests, Northern Division, to the Secretary to the Board of Revenue, dated Ootacamund, 13th April 1885, No. 120 :—

In accordance with the orders conveyed in Board's Resolution, No. $\frac{769}{\text{Forest 148}}$, of 6th March 1885, I have the honor to submit my views on the proposal of the Director of Public Instruction to establish a class of Forestry at the Saidápet Agricultural College.

2. Mr. Grigg's proposals are given in paragraph 24 of his letter, No. 7059, of 26th September 1884, to the Chief Secretary to Government, and evidently refer to the Subordinate Service only. For the higher grades of that Service, Forest Rangers and Sub-Assistant Conservators, *i.e.*, officers whose pay varies from Rs. 50 to Rs. 200 per month, we have already the very best institution possible in the Imperial Forest School at Dehra Dún, in the North-Western Provinces. The only objection I can imagine to the use of that institution is its distance from the Presidency, but Madras is not more distant from Dehra than Burma or Assam, or many parts of the Lower Provinces, all of whom send students to the school. In my own opinion, it is just in this very point that one of the great advantages of sending men to Dehra consists ; for in going to an Imperial School at a distance where they are enabled to meet students of other races and other provinces, and in every way to experience a change of association, they are enabled to gain to some extent what I consider our men mostly lack—self-reliance, energy and resource. The Forest School at Dehra Dún has the best staff of teachers of Forestry which it is possible to get together in India, and, in the forests surrounding it, it has types of various kinds suitable for teaching, while those in its immediate neighbourhood and on the Suvaliks contain trees of almost the same species as we have in our own deciduous forests. Madras students at Dehra have an advantage in their much greater comparative knowledge of English, and in my strong opinion it would be in the highest degree a retrograde step to give up sending our men to Dehra in order to find work for the College at Saidápet.

3. There remains then the question of the utility of the school to "Foresters," *i.e.*, to lower subordinates on pay varying from Rs. 20 to Rs. 40 per month. The first great difficulty about such men is to secure competent candidates. They have to be under twenty-five years of age, and up to that age there is always the chance before them of securing what they all covet, especially a footing in a Collector's office or in the Revenue Department. We do not therefore get the best men, for we have no prizes to offer like those of a Tahsildarship or District Sheristadarship ; and of those who do join us, few, if any, when first appointed, have any idea of what a forest is or what Forestry means, and if theoretical instruction is to be of any good, it must be preceded by some years of experience. Our present system is to give that practical experience, and we give our lower subordates every incentive to learn their work by making it necessary for them to pass the "Departmental and Surveying Tests" before they are qualified for promotion to Ranger.

The Departmental test is a most useful institution, of which I have a very high opinion ; the Conservator is the Examiner, and he takes good care to see that only those who really have paid an intelligent attention to their duties are allowed to pass. I hope that now every year the two or three best men picked out at the Departmental test examination will be sent to Dehra to qualify, and that by degrees we shall be able to reach the point at which all our Rangers will be men who have first done practical work in the Madras forests, have shown their capacity and intelligence by passing the Departmental test, and then have spent two years at the Imperial Forest School.

There would be no use in the utilisation of Saidápet merely for Foresters, for the small amount of the rudiments of Chemistry, Botany, &c., as enumerated by the Director of Public Instruction, which are useful to a Forest subordinate, could, in my opinion, only be usefully taught practically and with special relation to forest work.

4. It may be as well to explain also that the establishment of a Forestry School at Saidápet would be a considerable expense, which is quite unnecessary. Doubtless, we have officers capable of teaching Forestry, but none who can at present be spared, and as regards practical work, we have, I think I may say, as yet no forests sufficiently long under good scientific working for good teaching ; nor are we likely to have such until the demarcation and settlement of the reserved forests is completed and Forest Officers have more leisure for working plans.

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5. I trust, under these circumstances, that Government will be pleased to allow our present system, which is amply sufficient for all purposes, to continue. If eventually, a large increase of work and number of subordinates make a Madras Forest School necessary, it is not at Saidápet that it should be instituted, but at some place like Coimbatore, where it would be close to the most important forests and plantations, both of the hills and plains.

Resolution—dated 30th April 1885, No. $\frac{1291}{\text{Forest 240.}}$

Submitted to Government.

2. The proposal of the Director of Public Instruction to establish a Forest School at Saidápet is admittedly put forward by him only as a suggestion, and not with any feeling of confidence that it would be approved. It is condemned by both Conservators on grounds that appear to the Board to be unanswerable, and in that condemnation the Board fully concur.

3. The existing system of training young men for subordinate Forest posts, and the best of these for higher posts (such as that of Forest Ranger, which the Conservator, Southern Division, considers the key-stone of the Forest administration system), is, *first*, to give them a good practical acquaintance of forest life and working, and at the same time make them study and appear for an examination in which their practical knowledge of Forestry, Surveying, &c., is put to the test and judged of by the Conservators themselves. The best man can then be chosen for transfer to Dehra Dún, where there is a Forest School admirably managed and officered and situated in the midst of forests. Here the intelligent and fairly-educated Forester from Madras is at once able to apply his practical knowledge and to enlarge his experience, with the result that, at the end of his school course, he is well fitted to be a Forest Ranger or even to hold a more responsible charge. Mr. Grigg's proposal is very much the reverse of this. His idea is to get the young men who would be Foresters, &c., to school first at Saidápet, and then send them out into a Government forest for a few months each year under the Forest Professor. The scheme appears to the Board unpractical and cannot bear comparison with that now in vogue; nor is there any chance that a School of Forestry, if established at Saidápet, could ever compete with that at Dehra Dún in the really practical Forest educational advantages which it possesses.

4. The Board, therefore, strongly recommend that no change be made in the existing system, and that the Director's suggestion be negatived.

MADRAS.

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Section III.—Sittings at Madras.

Witness No. I.—*8th May* 1887.

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J. M Cherry, Esq.

Examination of J. M. CHERRY, Esq., Deputy Conservator, First Grade.

The *President.*

How long have you been in the Department?—I have been thirteen years in the Department, to which I was appointed by the then Conservator. I am an Englishman, born and educated in England. I first came to India on business connected with the property of relations, and was largely concerned in looking after plantations.

Had you studied Forestry before you came out?—No; but I had studied Botany and Chemistry in a Science School. I have not been to Dehra Dun. I have set forth my views in a note (hands in the following note):—

1. Does the great extent of Forests under the Department, the comparative numerical weakness of its controlling staff, and the heavy expense attendant upon any adequate increase thereof, indicate the advisability of improving and expanding the executive, *e.g.*, Foresters, Forest Rangers, and Sub-Assistant Conservators?—Yes. I consider the Department underhanded both in the Field and Office branches, and this will become the more apparent as Forest Settlement progresses and distinct working develops. A District Forest Office establishment should be as large as that of a Sub-Collector, and each Range Officer should have at least two Clerks; and I should like to see all Forest Clerks graded as Foresters and Rangers, so as to allow of a change of duties when advisable. The revenue and expenditure which passes under my control is at present about one-and-a-half lakhs and three-fourths of a lakh respectively—both steadily increasing. The bulk of this is collected and spent in small items all over the district. I have about 650 subordinates under me, more than 95 per cent. of whom draw between Rs. 4 and Rs. 15 a month. Some of these latter are on the permanent, some on the temporary, establishment. This rather interferes with transfers, promotions and reductions, and it is a question whether it would not be best to place all of this class on the temporary establishment. I am in favor of all below a certain pay being placed on the temporary establishment. It would the better enable us to obtain the best men for the work, and we should not be hampered by the various rules which make it so difficult to get rid of an inefficient man if he is once on the permanent establishment. We have the greatest difficulty in getting good men for the lowest classes, that is, Patrols, Watchmen and Guards. Hill or jungle men would do well, but they cannot read or write, and have not courage enough to bring an offence home in cases where a caste or influential man is concerned. The best we get now are the Mahomedans and Rajputs.

As regards the Executive, the district I have charge of comprises 7,500 square miles. In this area, we have to protect and enforce complicated rules over 2,500 square miles of scattered and out-of-the-way forest, and 3,000 square miles of other land at the disposal of Government. We have the special care and direct working of 122 scattered reserves, averaging 5,000 odd acres, and aggregating 646,000 acres, with more to follow.

My present staff of executive officers consists of four Rangers and nine Foresters, of whom one is an Eurasian, one a Hindu Christian, five are Mahomedans and six Hindus. My forests are at present divided into nine Ranges, covering each about 800 square miles of area, and containing each about 300 squares miles of forest. I want for present work (which consists chiefly of general protection, general collection of revenue, of settlement, demarcation, surveys, and division of Forest Reserves into blocks and compartments for working plans) one Ranger for each Range (this would more than double my present number), and eventually one to every fifty square miles of Forest Reserve. It is in the Foresters' class, however, that very large additions will have to be soon made, and I believe that when working plans are introduced, and provide for systematic fellings, improvement cuttings, and other cultural operations each year, we shall want a resident Forester for every 5,000 acres or so. The Forester's is a very important class. It is here that the executive officer commences his innings, and from which qualified men may be recruited for the higher executive. I should like to see the Forester's grade improved up to Rs. 100 pay, so as to attract both the better class of Natives, and Europeans to enter the Department in this class. There need be no fear of the Forests not covering the expense. It would be a poor reserve of 5,000 acres that could not stand an expenditure of Rs. 100 a month for supervision, and I think it is by no means improbable that the annual yield may hereafter reach from half to one rupee an acre. I do not see any particular advantage in retaining a Sub-Assistant Conservator's grade, but I would, in place thereof, grade the Ranger's class from Rs. 100 to Rs. 250, at which latter pay the Assistant Conservator's grade begins. I would make the Subordinate staff conclude their service, and the superior staff commence their service, in the Assistant Conservator's class, which at present rises to Rs. 450 pay, and Rs. 120 travelling allowance. At the same time, opportunities

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should be given for any officer of the subordinate staff to qualify for entrance to the superior.

Assistant Conservators should commence their service in the executive, and if placed in control, it should, as a rule, be limited to sub-divisions of a district. The control of an entire District should only be given to officers of the Deputy Conservator's class. In making these suggestions, I should, however, observe that the present organization has only (in this Presidency) been in force since 1883, and it is almost too early to draw conclusions. I wish, however, to impress on the Committee that we are undermanned in all the classes, and that some provision is also necessary whereby a reserve of qualified men may be held to fill vacancies, in place of, as often happens at present, unduly increasing the burden of the others, or putting in the first promising man that applies. As regards the best men suited for Forest work, I have made some remarks further on.

2. To what extent should the controlling grades (Conservators, Deputy and Assistant Conservators) be open to Natives, and how far would a change in this direction conduce to true economy and efficiency?—I would not bar any one from qualifying for the controlling classes, but I do not think many Natives would care to qualify. I have had no experience of Natives as controlling officers, but only as protective and executive officers, and I feel sure that the majority of Natives themselves who have experienced real Forest work will agree with me that neither the life, nor the work, suits them; and that they would sooner serve in any other Department on even less pay I may make some exceptions of Eurasians and Mahomedans, among whom I have had a few men who were not afraid of the Forests, and who could stand roughing it; but, as a rule, the Native of the country strongly dislikes jungle-life, and has been brought up to dread all forest tracts. He dislikes the hard manual exercise; the exposure to, and changes of, climate; the loneliness and discomforts of the life; the separation from town and from kith and kin; the interruption with many of his social and caste customs; and the risks of accidents and illness. Neither has he any resources of occupation, or love of sport or wild scenery, or of the study of the animal and vegetable kingdom, that often encourages an educated European, and helps him to make the life bearable, and even pleasant.

Apart also from tastes and habits, a Native has, as a rule, not the physique necessary. Curiously, he does not stand exercise in the sun even as well as a European.

In the office, well-educated Natives are invaluable. None better. In fact, their intelligence, patience, love of details, and memory for facts is remarkable.

As executive officer, a Forester would have to live in, or constantly camp in, or move about, his Forests, personally directing operations in protection, demarcation, clearing of lines, cultural operations, fire-tracing, felling and conversion of trees, seasoning and removal of timber, collection of minor products, construction of roads, bridges and buildings, management of machinery and live-stock, and generally to carry out the annual plan of operations decided on.

A Range Officer's duties would be very similar, but on a larger scale, entailing more travelling (as he would supervise the work of several Foresters), and would, in addition, have a large establishment under him, and the check and adjustment of the large revenue and expenditure in his Range. As Controlling officer, a man must be familiar with the details of all operations, has to adapt himself (which is not an easy matter) to changes from weary sedentary work at office to times of continual hard labour in the field; must be good at organizing systems and methods; should have considerable discretion in dealing with the large and mixed establishment of subordinates under him; and is often called on to advise or decide on important questions of reservations or concessions to be made regarding forest produce to individuals or communities. I would bar no men from proving their fitness for forest life and control. At present, the low pay of the executive branch closes it to the better class of Europeans, which I think a pity, as they may possibly prove to be better men for the work than the best Natives, and, in many cases, are absolutely necessary.

3. Are the present conditions of service such as to secure the best men available?—I presume conditions regarding Pay, Leave, Length of Service, and Pension are meant. As regards pay, I should like to see the number of appointments of Rs. 12,000 a year and over increased, so as to give officers a better chance of securing the higher pension (better by 50 and by 25 per cent.), should they be obliged to retire after the 15 or 25 years' service limits laid down under the present rules. As I have said before, I should like to see the Foresters' and Rangers' pay raised, so as to tempt the better class of Europeans and Eurasians, as well as the better class of pure Natives, to qualify for the executive. The ordinary work on a forest property is very similar to that on a coffee or cinchona estate. There are few owners of private estates who would not prefer a European for the work to a Native Superintendent, and I know many gentlemen planters who would have made first-rate managers of some forest properties, and even enjoyed the work—men who could build their own houses, and settle down to a resident forest life, managing, doctoring and encouraging their establishment.

As regards leave, I may say that the exposure to climate and risks to health attendant on a forest life make it very desirable that liberal leave rules should be framed, and that provision should be made so that a man who has well earned his leave may not be delayed in taking it on the ground of insufficiency of hands. I myself come under the more favorable Leave Rules, which are very liberal; but, even if I could get leave half as often as I wanted it, as none of it counts for service it would be very foolish of me to take it, unless serious illness obliged me to go. Every day's furlough or sick leave only adds so much to the thirty years I have to put in to entitle me to a retiring pension. At present, I have to put in nearly fourteen years' more actual service. I shall be fifty-six before I can put that in, and that only if I take no more leave.

As regards length of service, I have no hesitation in saying that the thirty years' actual service for

all ranks is much too long for forest life (the trained men now sent out from Home have more favorable rules). I consider twenty years' actual service to be nearer the mark. A man after ten years of forest life (and a Forester alone knows what that means) views with considerable alarm the prospect of twenty years more of it. As regards Natives also, the life soon begins to tell upon them. It must be remembered that forest work is much the same for all classes, from the beginning to the end of the service. There are no posts to which a man of long service or broken health can be appointed for lighter work till such time as he can retire, and the medical officer who refuses to invalid a subordinate on the ground of his being fitted for "light work" is hardly aware how much the Government interests suffer thereby.

As regards pensions, I am not prepared with any definite proposals. I need only say that, in common with my brother Uncovenanted Officers, I have strongly urged that the pensions, as now fallen in value with the rupee, are very small, and few men will take them unless forced out of the Service. It is very necessary also that a graduated scale of pensions after ten years' service be substituted for the present limits. Unless concessions are made, the Department may certainly suffer, for, as experience is gained and men become better acquainted with the nature and rules of the Service, it will be difficult to get men to join.

In making these remarks about the Service Rules, I may add that I cannot see why, if the employment of Europeans as well as Natives is desired, it should not be possible to give them better Service Rules than the Natives of the country. Let there be Service Rules for a Native Civil Service (to include all Departments) and a European Civil Service, no matter what Department, or what grades of a Department, the man may belong to.

A European is not encouraged to settle in India—not even to invest his money out here. His family has often to be maintained at home for long periods. A large share of his earnings has therefore to be remitted, at considerable cost at present. He cannot but take long leaves to visit his country and relatives and to recruit his health, and he looks forward to spend the few remaining years at home that his long service out here leaves him. This applies equally to all Europeans, whatever branch of the Government Service they belong to, with the exception that, in some Departments, as in Forest, the nature of the work and life is such as to require some special consideration. But none of this applies to the Natives. They do not require to undergo the expense of maintaining two very distant establishments, of the cost of remitting money home, of taking long leaves, nor have they any desire to quit a service in their own land and surrounded by their relatives and friends, so long as they can possibly hold on in it; and this applies to all Natives, no matter what Departments they belong to. I do not see why, say, a first-grade Ranger, if a European, should not be paid more than a first-grade Ranger if a Native.

A Native, say, on Rs. 250 a month, lives as well in his line, and is thought to be as well off by his own people as we should think a European to be on Rs. 500. At present, you would put the Native into a lower grade, and the European into a higher. This interferes with the grading, and the Native's position in the list, and his prospect of promotion, and I fancy is what he would feel more than a difference in pay merely. I would supersede no man unless he had disqualified himself by faults or failings—of which he should be told at the time. There are cases in which a European as Ranger is well worth the extra cost of a personal allowance, and others in which the Native agency is sufficient. At present, the grades are rated too low for the employment of Europeans, and there is an objection to raising the rates for fear of wasting money on a Native agency, which, as a rule, can be got for much less.

4. Is it advisable to reorganize the School of Forestry at Dehra Dun on a footing which will enable it to supply efficient recruits for an enhanced executive, and ultimately become a source from which the future controlling staff shall be drawn?—Yes. The Dehra Dun Forest School is an admirable institution, and likely to do much good. The only present apparent drawback is that the number turned out is so limited, and that, at this rate, it will be a long time before even a large portion of our executive staff can have passed through the course. I have selected and sent up five men, who have all done well in the School, and of whom three have returned. I have had too little experience of the returned men to report progress, but the School certainly improved their knowledge of forest work, and I suppose from contact with Europeans and others at the School, their style and dress and habits were better fitted for forest life. I think, also, the training has given them a greater interest in their work, and that they are more likely to stick to the Department. I should like to see the School much nearer to Madras. The expenses of establishing a School in Madras would, I suppose, be too great, but I believe that a branch of the Department, entirely devoted to surveys and working plans, might, with great advantage and usefulness, be organized for this Presidency, and to this there should be a certain number of reserve subordinates attached, either to undergo a preliminary training before going to the Dehra Dun School, or to be attached, for some time, on return from the School—in either case, in order to apply the training of the School to particular local needs.

As regards officers of Controlling grades, I think it would be useful to them, when they came out from the home training, if they went to the School, to become acquainted with the class of men who would work under them, to learn the vernaculars, and how to apply their professional knowledge to the circumstances of this country; but I think that the Controlling officers, for many years to come, must, and can only, get their principal Forest training in Europe, where they have better opportunities of seeing and appreciating the practical results of their teaching.

5. How have officers of the Subordinate staff hitherto acquitted themselves when placed in positions of trust and responsibility, such as the position of a District Forest Officer or the charge of an important Sub-Division of a District. What has been the nature of their duties when so employed,

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what their previous training, and to what classes of the community have they belonged?—In the position of District Forest Officer, I have only had experience of two men. One, a Eurasian, had been a good man, but went utterly to the bad when placed in independent charge, and ended by getting a long imprisonment for embezzlement on a large scale. The other, a Mahomedan, was an honest, painstaking man, but dull and slow at his work. My experience has chiefly been with the Overseer or Forester and Ranger classes. I have found the Natives, as subordinates, in many respects very useful. They are patient and respectful, but, as a body, I have not had that confidence in them, when placed in positions of trust and responsibility, that a Controlling officer ought to have. They generally require the constant association with, and supervision of, a European officer. In carrying out details, or some specific minor work, or when entrusted with certain known quantities, they are reliable, but in dealings where procedure and check is not quite perfect, or in the conduct of work and establishment, where the rules are not thoroughly explicit and binding, there is an inclination to take or allow advantage to be taken of any loop-hole that may exist. There are many degrees between honesty and absolute dishonesty, and though it may not be possible to prove the latter, there is very often an unsatisfactory suspicion, amounting to conviction, that all is not above board.

As regards work, the actual forest part of it is generally so distasteful to the Native that he avoids it as much as possible. As a rule, he has to be driven to it, and in many cases, if it cannot be shirked or done by others, he flies to a Medical Officer for a sick certificate. Within the last two years, I have had a good deal of demarcation of reserve boundaries on hand, which is an important work requiring honesty, discretion, and hard labour. As a practical proof of what I say, I have found it necessary to do nearly all this work (about 300 miles at present) myself. These are my general impressions. Of course, there are exceptions, and I hope that these will increase the more we improve the position. On behalf of those to whom my general remarks may apply, I should, however, say that there are great temptations to fall into bad habits—a very hard life, full of discomforts, want of companionship with their own class, constant association with workmen and purchasers of the most intriguing description, large dealings in revenue and expenditure of a scattered and miscellaneous character, and small pay. Also that the men hitherto employed have entered under no particular qualifying rules. The general test was the one of old days, but very many have not passed anything. Now we get applicants who have passed the Middle School Examination in the first class and Matriculates as a rule, and F.As. sometimes. I have had only two B.As., both in my office, and very good, useful men; but neither of them would accept a field appointment when offered.

6. What is the present condition of the Mysore State Forests under Native administration, as compared with what it was under European management?—I know nothing of Mysore Forest administration. I have had a good deal of experience of private forests in the hands of Natives. As a rule, there is no practical administration. The owners hardly ever visit them, or know their limits and features. The work is done by contractors, and the owners sole object is to get the largest quickest returns, and without any thought of the future.

The *President*.

Apparently, none of the Forests of which you have charge are in such a stage of development as to afford opportunities for a thorough practical forest training?—No. We have very few data to go on. We are getting them under the charge of the Department. We have got working plans of one block, which is a small one.

Mr. *Ramaswami Mudaliyar*.

Are the men under you who were trained at Dehra Dun Hindus?—One is a Brahman, the other is a domiciled European.

How does the Hindu work?—I have not seen his work, but he writes good reports.

The *President*.

Do you approve of the exceptional promotion from the Executive to the Controlling grades of Natives of the country who have shown themselves fit for it?—I think that all qualified men should have a chance of promotion.

Witness No. II.—*8th August* 1887.

Lt.-Col J. Campbell-Walker.

Examination of Lieutenant-Colonel J. CAMPBELL-WALKER, S.C., Conservator of Forests, 1st Grade, Southern Circle.

The *President*.

When did you join the Department?—I came to India in 1859, and entered the Department in 1865. I was a Staff Corps officer. I have been employed all over the Presidency, but chiefly in Salem, South Arcot, Tanjore, Madura, Trichinopoly and Coimbatore. Before my appointment to the Department, I had studied Forestry in Germany for six months. I attended the lectures given at the School there and accompanied the parties going out into the forests, took notes of the system, and made reports to the Secretary of State on the system of training there. Those reports have been published. I have written a note on the subject of this inquiry which I will read with your permission (*reads*):—

I joined the Madras Forest Department in 1865, having come to India as a Military officer in 1859. I have been in the Forest Department ever since, *i.e.*, for upwards of 23 years. I studied Forestry in Germany and Austria subsequent to my joining the Department, and reported on the subject generally to the Secretary of State, under whose instructions my reports were published. Although originally a Military officer, I consider my profession that of a Forest officer

and believe I am generally regarded as a professional Forest officer. I rose gradually through the several grades until confirmed as Conservator of Forests for the Presidency in December 1881. I am now Conservator, First grade, in charge of the Southern Circle. My chief service as a District officer has been in the Southern districts of the Presidency. I was selected by the Government of India for service in New Zealand as Conservator of State Forests, and received the thanks of that Government for my services and report. I have attended two Forest Conferences in India as the representative of the Madras Government.

I have no bias in favor of trained or untrained officers, or of Europeans as distinct from Natives of India.

I entirely concur in and and endorse the views of Mr. Ribbentrop, Inspector-General of Forests to the Government of India, as to the recruitment of the Forest Service. We require a very high standard of officer, both in the Controlling and Executive grades, and should endeavour to obtain the best men we can at the cheapest price, irrespective of nationality or race distinction.

Provided everything else be equal, we should give the preference to "Natives of India," whether they be Europeans born and domiciled in India, Eurasians, or pure Natives. The Department can well afford to pay for the best men available. If not called upon to produce a surplus in the present or immediate future, it will, I am confident, become one of the most important, as regards direct and indirect benefits to the community, and financially successful Departments in India.

At present, our Circle, Divisional, Range, and Beat charges are far too large to be efficiently supervised and administered.

Proposals for the augmentation of the Controlling staff are before the Local Government, and a gradual but steady and considerable increase to the Executive and Protective staff—*i.e.*, Sub-Assistant Conservators, Rangers, Foresters and Forest Guards—must take place within the next few years.

I proceed to answer briefly the questions of the Sub-Committee as formulated:—

1. The Executive staff must certainly be largely increased as Reserved Forests are constituted and brought under the provisions of working plans; but it is little use increasing mere numbers. We must increase the efficiency and knowledge and interest in their profession of the Range Officers, who are, or ought to be, the mainstay of the Department, corresponding to the Ober-Förster in Germany.

2. The Controlling grades should be, and I believe are, open to Natives of India equally with Europeans provided they possess the necessary qualifications (physical and mental), have the necessary training—which cannot be obtained in India at present—and pass the prescribed examinations.

The larger employment of Natives in the controlling grades would doubtless tend to economy in salaries, though not, I think, to any great extent. A Native possessing the education and qualifications we require and obtain for the Controlling grades would expect, and could probably command, a salary equal to that of our Assistants and Deputies.

As regards efficiency, it is difficult to offer an opinion until Natives are tried in the responsible and difficult position of a District Forest Officer. At present, I do not know any Native really competent and fitted to hold such a post and perform its duties as now understood. We are, however, obliged to employ Sub-Assistant Conservators, Native and European, in that position, owing to paucity of officers of the Controlling class.

3. I think the present conditions of service are such as to attract the best men available, though I am not altogether in favor of the transfer of the training for the Controlling grades from the Continent to Cooper's Hill, where there can be no atmosphere of Forestry, with which Forest Officers should become, so to speak, inoculated. I think the pay and prospects will have to be improved to secure officers of the stamp we have already got or better in the future, and think it possible that it may be found advisable to increase the age limit and training and start officers of the Controlling class on higher salaries, say, Rs. 400 or Rs. 500 per mensem, providing for more prizes in the shape of appointments on Rs. 1,000 per mensem and over.

The conditions of service in the Subordinate classes must be improved in order to secure better men. There must be more prizes in the shape of appointments in the Sub-Assistant Conservator class, the pay of which should rise to at least Rs. 400 per mensem. Proposals to this effect, which emanated from the Forest Conference last October, are now, I believe, before the Government of India.

4. I do not consider any reorganization of the Forest School at Dehra Dun necessary, but it should be extended by the employment of more Professors and Assistants relieved from other work so as to turn out more and better-trained men.

There are objections to training officers for the Controlling staff at the same place and time as those for the Subordinate staff. At any rate, the question is not at present within the range of practical politics, as we could not give men the training and education they require for the Controlling grades, for lack of Professors and Forests in a condition to illustrate their teaching.

5. There are two classes of officers now in the Upper Subordinate staff, viz., (*a*) self-taught, and (*b*) trained. Of the former, Mahomed Ali Sahib is an excellent sample. He has filled several positions of trust and responsibility as District Forest Officer and Sub-divisional Officer most creditably, but is ignorant of professional Forestry as now understood. The same may be said of Messrs. Carroll and Eber Hardie, though the latter, who is comparatively junior, is better educated and has been taught some Forestry by Mr. Brasier in Tinnevelly. Of the trained men, *X*, a Hindu, has done fairly well on special duty connected with the collection of data for working plans. He is reliable and appears to take an interest in his work, but he is not competent for the charge of a Forest division, relies entirely on his District Forest Officer, Mr. Porter, for instructions, and last year, when he got a slight touch of fever on the Anamalais, succumbed entirely, lying down and moaning, refusing

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proper diet because it might injure his caste, and exhibiting a lamentable want of pluck. He is a passed student of the Agricultural College, Madras, was a Forest Ranger in Salem, and has passed through the Forest School and obtained the Ranger's certificate with credit.

Mr. Howell, a European, but Statutory Native of India, has great abilities, was "*facile princeps*" at the Forest School, but failed to do justice to the charge of the Wynaad Sub-division last year. He has since been employed on special duty, *i.e.*, without any definite charge, in Salem, and has done fairly well; but I do not consider him competent for charge of a Forest Division or even of an important Sub-Division.

He was formerly Deputy Tahsildar of Salem Town and the Shevaroys and a Clerk in the Collector's and Forest Office, and is an active young man, very well educated, and of respectable connections.

Both of these men are really the style of officer we require as Range Officers, but are not good enough for charge of a Sub-division or Division, even putting aside their social position, which does not admit of their meeting officers of the controlling class in other Departments on terms of equality.

6. I shall make further inquiries as to the condition of the Mysore State Forests under Native administration.

So far as I am aware (1) from what Mr. Brandis and the late Resident, Mr. Lyall, told me, and (2) from my personal knowledge where the Forests adjoin ours in Malabar (Wynaad) and Salem, it has deteriorated very considerably. In fact, there has been no proper forest administration at all—merely cutting and sale of trees, chiefly sandal, and the collection of revenue. There are, I believe, no working plans, protection is imperfect, and the heresy that forest fires do little or no harm and cannot be prevented has, or rather had, been adopted.

The present Dewan recognizes, to a certain extent, the necessity of proper Forest administration, has consulted me regarding it, and got copies of our Code, Act, Rules, &c.

A European officer, Mr. Ricketts, has been appointed Inspector-General of Forests, and 3 Natives (Brahmin B.As.) sent to the Forest School as Probationers. They obtained the Ranger's certificate, and have, I believe, been appointed Sub-Assistant Conservators. They are to visit our Nilambúr plantations shortly, to receive practical instruction and make notes. Theoretically, they doubtless know something of the rudiments of Forestry, but practically very little, and I do not believe, nor does the Director of Forest School, that they are competent even for the charge of a Forest Range without experience and careful supervision and training by an officer of the Superior grade thoroughly conversant with his profession.

N.B.—Since writing the above, I have had the privilege of ascertaining the views of the Dewan, Mr. Ricketts, Inspector-General of Forests, and other officers in the service of His Highness the Maharajah, on this point. They may be summarized as follows:—

The European forest administration, which ceased on the rendition of the Province, was not all that could be desired, owing chiefly to a lack of professional knowledge amongst the Superior officers and friction with the other members of the Commission. It was followed by an interregnum, under which it may be said that there was no forest administration or policy at all. The Forests were neglected and being rapidly destroyed. The present Dewan, Seshadri Aiyer, fully recognises the necessity of a careful and continuous forest policy and the necessity of a European officer at the head of the Department, for the present, to secure it; but is sanguine that, by careful selection and training at the Forest School, Natives may eventually be found competent to fill even the highest offices, and administer the Department. He expects great things from the three Graduates with Forest Ranger's certificates from the school already referred to, and other Natives of good general education similarly trained, but admits that they are not now competent for independent or semi-independent charges. He thinks that the Natives of Mysore will be found more hardy and acclimatised to fever than those of other parts of Southern India, and that they will not shirk a forest life, for which he anticipates numerous candidates when the advantages, conditions of service, &c., are better known.

On the whole, it may, I think, safely be said that the attempt to administer the forests by an untrained or non-professional agency, European or Native, has failed; that the necessity for some European control has, for the present, been admitted, and that the question of a purely Native Forest administration is in its infancy, and no opinion for or against it can or ought therefore to be pronounced.

It will be gathered from what I have written that, with every wish to further the greater employment of Natives and their advancement to higher posts and salaries, I do not consider it practical at present.

Not only is professional training wanting, but the habits and proclivities which go to make a good Forest Officer are conspicuously absent in the educated Native of Southern India.

I do not hesitate to say that, with rare exceptions, none of them would ever enter the Forest Department, if they could obtain Government employment on anything approaching the salaries which we offer in the Revenue, Police, Educational, Registration, or even the Survey and Salt Departments. This is especially the case, with regard to Hindus whose whole social training and proclivities, religious scruples, and family ties revolt against a life "in the jungle." On the other hand, our salaries and prospects are not good enough to attract and retain Europeans of the class and education we require. Our best field to recruit in would appear to be the Mahomedans and Eurasians, but the former are unfortunately wanting in education, and Mahomed Ali Sahib will testify that he has never been able to find one man of his co-religionists whom he could conscientiously recommend for a Ranger's or Forester's post, though I have asked him to do so repeatedly. We have had some good Eurasian Range officers—notably, Mr. Newnan, who died last year, in North Arcot, Mr. Wontersz, in Trichinopoly,

and Mr. VanHaefton, in South Malabar; but, as a rule, I am sorry to say I have been disappointed in them.

They are averse to manual labour, expect to live much as Europeans, are not familiar with or respected by the people, and appear to be as easily imposed upon as regards rates of labour, &c., as pure Europeans, whilst they are often as physically weak and afraid of a forest life as pure Natives. I do not despair of creating in time a class or race of Foresters from amongst the Europeans domiciled in India, Eurasians and pure Asiatics, but I wish to emphasise the fact that it does not exist in Southern India at present; even Forest Guards who will live in the forests and do actual forest work, being most difficult to find.

I consider that the status, pay, and pension service and rates of Forest Officers, both of the Controlling and Executive grades, require to be greatly improved in order to secure and retain the services of the class of men, whether European or Native, which we require and must have if we are to make the State Department what it ought to be, and, I feel sure, will become under a liberal and sound policy. There will besides be a wide field outside Government employ in the management of communal and private forest estates, in which many hundreds of Natives of good general education and special professional training will, I believe, eventually be employed.

The *President.*

Have you considered whether the Agricultural College here might be developed into a training school for Rangers and Foresters?—Yes, and I do not think it possible.

For what reason?—That there is no staff of Professors competent to teach Forestry, and that there are no forests attached to the College or near to it in which to teach the students.

Would you advocate the sending of Forest Rangers and Foresters to the Saidápet College for preliminary education in Botany, Chemistry and kindred subjects before being sent to Dehra Dun?—I always endeavour to get men from the Agricultural College, from the Civil Engineering College, or men who have had some sort of training. I think if men were sent to Saidápet before they entered as Foresters they would probably become more eligible for Indian Forests than men educated in any other way. It was on my suggestion to Mr. Grant Duff that the change was made with regard to botanical teaching. I should like to impress the Committee that what we require in a Forest Officer is a very high education, a good physique, and an aptitude for forest life, and I need scarcely say that these three requisites are at present very inadequately recognised and very inadequately paid.

Can you tell us whether what has already been done for Forestry in this Presidency has resulted in great pecuniary benefit to the State?—Until the last five years, that is until we got the Forest Act, we certainly did not make much progress in the shape of acquiring revenue, because we had no defined area under our control. All we could do was to prevent damage as far as possible, which also was a very difficult matter, because we had no position or power or defined areas under our charge; the practice of systematic Forestry was unknown. But since then, our revenue has gone up, and will go up by enormous jumps if we are given the time. Since the reorganisation of 1882, the net revenue has averaged over two lakhs, the gross revenue being ten lakhs; last year it was fourteen lakhs. We have been spending everything we could, but unfortunately the Finance Committee now require us to show a surplus of two and-a-half lakhs a year, which is a fatal thing for us, because we ought to spend everything we can spend. Unfortunately, our officers have been so busy with demarcation and settlement and we have been so short-handed, that hitherto we could not spend all that we should have spent; and now we have to find this surplus of two and-a-half lakhs, when we ought, for the next fifteen years, to have gone on spending everything we earned. I do not ask for any grant from other revenues; I would keep an equilibrium between forest revenue and forest expenditure for fifteen years and then, as I told the Finance Commissioners, I believe the Government might count on fifty lakhs a year as a net revenue.

Sir D. Brandis is of opinion that the staff of Rangers must be largely increased?—I quite agree with him.

Do many men attend the Forest School from Madras?—Last year three men were sent from Madras to the Dehra Dun School. There are at present eighteen Madras students in the School, a large percentage of whom are Hindus; and nine of them have already qualified as certificated Rangers. There was one Mahomedan at the School, but he did not qualify for a Ranger's certificate; he only got a Forester's certificate.

Witness No. III.—*8th August* 1887.

Examination of E. D. M. HOOPER, Esq., Acting Conservator of Forests, Second Grade, and District Forest Officer, Kurnool.

E. D. M. Hooper, Esq.

The following note was handed in by this witness:—

I successfully competed for an appointment in the Service in London in November 1871 and after the full period of training at Nancy; in France, reached India in December 1874. I served for eight years in the Central Provinces and was selected for transfer to Madras on the reorganisation introduced in 1882. Two years of the period that has since elapsed I spent away from India, and on leave, and a part of the time I was employed by the Secretary of State for the Colonies in proposing measures for the conservation of the forests in the West Indies and Central America. The rest of my leave or nearly all of it I utilised in making myself acquainted with the organisations proposed and in operation for protecting the forests of the Australasian Colonies and the United States.

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E. D. M. Hooper, Esq.

I am decidedly of opinion that in India the forests demand more generous treatment than they have hitherto been granted. Our establishments are weak in all grades, and the District Forest Officer is consequently unable to devote time to the scientific solution of the various problems presented by the forests, and their treatment. The staff, besides being weak, is uneducated in forest work. In Kurnool district there is a compact area of 1,600 square miles of forest required to be opened up, and the establishment for its protection consists of three Rangers and four Foresters besides twenty-two Guards, the boundary to guard being from three to four hundred miles. This area is now protected by the Forest Act, and under Forest Settlement as a Forest Reserve. I am convinced that this huge forest will repay expenditure incurred in opening it up and in throwing its enormous yield of forest produce upon the woodless Deccan country around, provided it is done gradually and the forest treated scientifically. The District Forest Officer cannot single-handed engage in the scientific execution of the necessary operations, nor even hope for success without educated subordinate aid. At present the preliminary management is effected by men who are in course of practical training, and I hope to supply the Dehra Dun College with some young Natives whose practical nature and gentlemanly bearing I can vouch for to the Director.

These men should on return be deputed to the Ranges they previously occupied, and again, under guidance of a trained District Forest Officer, show some return for the concession Government has granted in paying for their technical education. The passed Dehra Dun men, whether Eurasians or Natives, should be Rangers, their comparative merit being recognised by the grade they occupy.

The Controlling staff should continue to be recruited, as at present, by Europeans trained in Europe, cases of exceptional merit among our Native trained Rangers being rewarded by the appointment of the possessor to be a District Forest Officer. That, however, should only be after a most careful and scrupulously rigid probationership as Sub-Divisional officer under more than one District Forest Officer, and, above all, he should never, in his new position, be brought into contact with either the people or subordinates with whom he has associated as a Ranger. I do not know at the present time any Forest subordinate who could carry on successfully the work of District Forest Officer. The objects of Forest Conservancy are unknown to the majority of the subordinate establishment as well as, I fear, to the general Native public. It is generally regarded as an interference with the customary rights of the Native population for the purpose of raising a revenue subsidiary to that from the land, and the Forest Officer is regarded as a public enemy. The non-apparent results of strict conservancy can only appeal to a higher intelligence than the ordinary country public or the subordinate officers in district administration are possessed of. It follows then that the Forest Officer in any district has to carry on his work not only without the assistance, but, in many instances, in face of the passive opposition, of subordinate Revenue officers of Government who are in the closest contact with the general public.

It may therefore be conceived how difficult a position it is he occupies, and how necessary it is for him to exercise more than mere intellectual qualities if his work is not to be barren of all good result beyond the revenue yielded by the forests in his charge. I consider a Forest Officer's charge a most important one, chiefly from the fact that he can allow his forests to get into a bad condition without Government being the wiser for a long time. To prevent such a result it is absolutely necessary to entrust the work to officers not only trained to forest management and impressed with a desire to do justice to it, but who are gifted with the power to do such justice.

At present, forest work in Madras is being inaugurated on a firm basis. Hitherto, the efforts of individual officers have been directed more to the execution of timber works in the more accessible forest regions of the Presidency, but we have now adopted a more connected policy in dealing with the whole of the public lands.

The responsibility for the forests resting with the Collector in each district, the District Forest Officer is his technical adviser, and responsible for the execution of his orders. He has to show tact and discretion to no ordinary extent to carry through the details of a forest policy when he has to face the successive personal opinions of various Collectors rapidly succeeding each other in his district; and he also requires to give no halting advice and, above all, not to fear to respectfully argue matters he believes to be important. On the other hand, he has to turn a deaf but sympathetic ear to applications for favors and remissions from all classes of men, some of whom do not scruple to offer material advantages in return for a little blindness to Forest and Government interests.

I do not say that, with a high standard of scholastic education, we need fear any danger on the score of honesty. On the contrary, I think that, with a good general education supplemented by the self-respect and *esprit de corps* cultivated at the Forest College, Forest Rangers will act straightforwardly so long as they are not disappointed men, but the difficulty a Forest Officer experiences to secure the active assistance of the district authority in adopting and carrying through a forest policy when not consonant with the previous convictions of the officer responsible therefor, is to my mind a fatal stumbling block to the employment of a Native District Forest Officer under the present system of District and Forest administration.

Later on, with a healthier public opinion, less ignorance of the aim and claims of Forest Conservancy and with the rapid changes and progress that may be confidently anticipated, it will no doubt be different; but until then it will, in my opinion, be advisable to reserve the post of District Forest Officer to be filled by trained Europeans, except under very exceptional circumstances, when it may be possible to nominate a gentleman, Native or other, trained in this country.

For these reasons I see no cause for changing at present the course of studies at Dehra Dun with a view to training District Forest Officers.

The question of raising the standard of the entrance examination might be considered in the case of the Madras Presidency, if, as I hope, Native Graduates and men of education generally will take to the Service. At present our recruits are not of a class that has passed beyond the Middle School Examination test.

The men who come into the Service are, with very few exceptions, prompted to do so from failure to get on otherwise and the necessity they are under of providing for numerous relations. Those who can do so, secure appointments in the Revenue line, and young men prefer to have a permanent Rs. 20 post in a Collector's establishment to being a Forest Ranger on Rs. 50. The discomforts of a Ranger's life, its monotony, and dangers are all known, and it is advisable to improve the position and prospects of this class of Government servants.

The position of the District Forest Officer is reflected in the position of the Range Officer. Under the present organisation, Forest Officers have no definite position in a district. It is left to them and to the Collectors to make and keep up their position in a way; and a district where a District Forest Officer takes an influential position will have better men applying for service. The districts where the Forest Officer effaces himself or is effaced, the Department stagnates and few, if any, applications are received. I know of no district in Madras in which a Native Forest Officer has been at work though, in Chingleput, I understand Mahomed Ali Sahib has held charge. I have succeeded a Ranger in the charge of a district. He had only been temporarily in charge, and his fear of responsibility resulted in Government being laid open to being sued in a civil suit. In Upper India I have known of one successful nstance of a Native Forest Officer, a Mahomedan, the son of a Munshi in a Madras Regiment, who followed the fortunes of a military officer who entered the Department and speedily rose to a Conservatorship. The district held by this Native officer was an easy one.

The *President*.

Would it be possible to train men for the Controlling grades in India?—Not at present. I do not think we could give the practical training that men could get on the Continent. The technical knowledge they would get from books would be very different from the theoretical training they would get on the Continent. There are no forests here, and few, if any, in England that are worked on the same scientific principles as those in France and Germany are.

How often were you taken into the forests when you were at Nancy?—The English students, of whom I was one, arrived six months before the theoretical course had begun, and we were associated with the third year's men who were having their final practical course, so that when our practical duties commenced we were far ahead of the French students in preliminary practical knowledge, and then we had the ordinary two years' course from the 1st of November in one year to the end of the August of the third year.

How much of each year did you spend in the forests?—From November to May. There was constant study in the month of May and for about two months in the summer of each year, besides which, as occasions offered, we made short excursions into the School forests in the vicinity, our larger tours being over various parts of France.

It has been said that a knowledge of Forestry acquired in Europe could be of little use to a man who has to pursue Forestry in India, so far as botanical knowledge is concerned, because, he has to deal here with trees of a different species from those in European Forests?—The trees you have here represent the same natural orders as are represented in Forests in any part of the world. The principles are the same, the tree is fed in the same way, and dies in the same way.

I suppose variations in the characteristics of trees due to climate are to be found in India itself?—Yes.

Is there any rule which sanctions the appointment of Natives to the Controlling grades of this Department?—Yes. They may be promoted from the Sub-Assistants' grade in exceptional circumstances.

Witness No. IV.—*8th August* 1887.

Examination of MAHOMED ALI SAHIB, Acting Assistant Conservator, Chingleput District. *Mahomed Ali Sahib*

The *President*.

When did you enter the Department?—I entered the Department in 1863 as a 4th-class Overseer, as Rangers were then called. My family comes from Tanjore, where it has been established for some time. My father was in the Military service of Government. Before I became Overseer I was Regimental Munshi. I was about thirty years old when I became Overseer. I have had charge of five different districts since 1875.

What kind of work was going on in those Districts when you had charge of them?—In former days we had two systems of forest administration, one of which was called the "close" system and the other the "loose" system. In the close system the Department felled the timber itself and sold it; in the loose system the Department offered licenses for the cutting of so many trees or of so many cart-loads. The close system obtained in Salem when I had charge there.

Was any attempt made in those days to replant areas denuded by felling?—Yes.

Was any working plan made for the administration of the forest?—To a certain extent.

Was the system as scientific as the present?—Not so scientific, but still there was some attempt at a system. In North Arcot also, one of the districts I had charge of, the close system prevailed, and in South Arcot, where also I had charge, the two systems were combined. I am now in the Chingleput district.

Madras.
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Sec. III.
Mahomed Ali Sahib.

How would you recruit the Controlling grades of this Department? Do you think efficient men could be obtained in India to recruit the whole of the Controlling grades?—Not at present.

Have you been invited by officers under whom you have served to name gentlemen of your own race for appointment to the Forest Service?—I have.

Have you found any difficulty in finding suitable men?—Yes.

In what respect?—The difficulty was to find men of fair education combined with a sufficient knowledge of Forestry and power of controlling a large district.

Do Mahomedans take to forest life readily?—Yes.

They are fond of out-door life?—Yes.

Would you promote men from the Executive to the Controlling grade in exceptional cases?—Yes.

Do many Graduates apply for admission to the Department?—No.

Have you had Europeans and Eurasians under you?—I had them in Coimbatore, South Arcot and Canara.

What sort of Forest Officers do they make?—Pretty good.

Were they educated men?—To a certain extent; not sufficiently so to be fit for Controlling appointments.

Had they any practical knowledge of Forestry?—Some, I think, knew fire-tracing (that is, how to keep fires out), road-making, hut building, floating, planting, demarcating.

Have you anything to tell us about the Department?—No.

Have you seen any of the young men trained at Dehra Dun?—I have one under me now.

Do you consider the training given at Dehra Dun is beneficial?—I think the men who have received that training are better than the untrained ones.

Are men from this part of the country willing to go to Dehra to be trained?—Yes. One of my Foresters went this year. He was a Native Christian. The man who is now serving under me is a Portuguese from the West Coast.

Witnes No. V.—*8th August* 1887.

Gurunatha Pillai, Esq.

Examination of GURUNATHA PILLAI, Esq., Sub-Assistant Conservator, Second Grade.

The *President.*

I am a Native of Jaffna, in Ceylon. I entered the Department in 1879 in the Salem Division. I am now geting Rs. 150. In 1883 I attended the Forest School at Dehra and obtained my Ranger's certificate there.

Have you had charge of a Division at any time?—I was once, for a month, in working charge of a District; ordinarily I have been in charge of a Range.

You have been principally engaged on special duty?—Yes, in valuing forests in Coimbatore, and collecting information for making working plans.

Is the scientific training which is given at Dehra Dun of any practical value?—Yes.

Do you wish to make any observation on the recruitment of the Department?—I wish to say that the pay of the Subordinate staff—Rs. 16, 20, 30 and 40—is very low, considering the temptations they have.

Do you think we should get a better class of men by increasing the pay?—Yes.

Do you think a man can be an efficient Ranger unless he has had some scientific training?—No.

Has a Ranger to do any original work?—If he is sufficiently intelligent he does not require to be told.

At present Rangers are not given independent charge?—No.

How came you to go to the Forest School?—I applied to be sent there. I had attended the Saidápet College of Agriculture for three years, when I applied for admission to this Department.

Has your training at the Agricultural College been of any assistance to you in Forestry?—I think so. At the College I studied Chemistry, Botany, Surveying, Levelling and Practical Agriculture.

And also a scientific system of experimental sowings?—Yes.

Is the Agricultural Department a popular one with the Natives of this Presidency; do they resort to it freely?—If they cannot get employment elsewhere they will go into Agriculture or Forests.

Have many of the young men who were with you at the Agricultural College gone into the Forest Department?—Four or five have.

Had they been habituated to an out-door life at the College farm?—Only for half an hour each day.

Were they of a class that is fond of out-door life?—Yes.

Of what caste were they?—One was a Native Christian of Bangalore; there were one or two Eurasians, and a Brahman.

Have you anything else to observe?—I wish to say that, considering the arduous character of our work, the rule that requires us to serve so many years for a pension is rather a hard one.